RASA-JALA-NIDHI

OR

Ocean of Indian Chemistry & Alchemy.

VOL II.

COMPILED IN SANSKRIT

BY

BHUDEB MOOKERJI, M. A. *Rasacharya.*

(*Ayurvedic Physician*).

President, Institute of Hindu Chemistry. Formerly Lecturer, Post Graduate classes in Commerce, Calcutta University.

WITH ENGLISH TRANSLATION

BY THE AUTHOR

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Kaviraj Bhudeb Mookerji M. A.,

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PREFACE.

Little did I think at the time I set to myself the gigantic task of compiling, in 10 volumes, a book which has already been considered to be the most systematic and comprehensive treatise on the almost lost, abstruse, and little known science of Hindu Chemistry, that it would be received by the educated public with anything like enthusiasm. My diffidence in this direction was due, no doubt, to a strange but much evinced mentality, developed by a great majority of the present day Indians who are in the habit of condemning much of the social and cultural achievements of their forefathers without even taking the trouble of examining them critically, so much so that everything which is unknown and un-intelligible to these people is denounced as dogmatic, unscientific, and superstitious. But, fortunately for me, facts have belied my expectation, at least partially. The encouragement which I have been receiving from the really educated and patriotic section of the Indian public, irrespective of caste, creed, or community, has elicited in me a faint ray of hope that time may come when my countrymen will turn their eyes inwards and try to revive the ancient Indian culture, not only in the departments of language, philosophy, religion, mathematics, and social, socio-religious, and socio-political laws which have already received some attention, but also in the departments of material sciences including the science of medicine, which, even in its degraded and much neglected condition, can claim an incomparable superiority to all other systems of medicine known to the world. It is indeed

very gratifying to note that the first volume of my *Rasa-jala-nidhi has met with much appreciation not* only in India, but also in foreign countries.

It is a pity that no Indian University has hitherto given any attention to the study of Indian Chemistry and Indian medicine which are more important than the other branches of Indian culture. It is very difficult to foresee whether any of our Universities will ever come to realize the importance of these branches of ancient Indian culture, but, if men like Sir Chimanlal Setalvad, the present Vice-Chancellor of the Bombay university, continue to be at the helm of University affairs in India, time may come when my dream of the resurrection of the moribund Indian sciences may be fulfilled.

Whatever that may be, the publication of my work involves immense commercial possibilities. It is a matter of common knowledge that a great many of the allopathic drugs are prepared from Indian herbs, the properties of which the allopaths came to learn from the Indian books on herbal medicines ; but, unfortunately, the allopaths have not yet had the opportunity of knowing that by far the greater portion of the literature on Indian medicines is still a *terra incognita* not only to them but to many of the practitioners of Indian medicine themselves.

Of the innumerable metallic medicines prescribed in books on Indian Chemistry, Rasa-sinduram or ordinary sulphide of mercury (wrongly called "makara-dhwaja" which is prepared out of sulphur and mercury which has digested some gold, *i. e.* swallowed some gold without any increase in its original weight, so much so that the gold, thus swallowed, can by no

means be separated from the swallowing mercury. Vide, pages 76 to 99, 134-135 and 105-116, vol. I), is the only one that has been brought to the knowledge of the allopaths who have found it very efficacious as a general tonic. This medicine is now being prepared by some foreign chemists and used extensively by the Indian Allopaths. My publication will afford these and other chemists an opportunity of preparing many other metallic drugs, a lot of which are much more efficacious than Rasa-sinduram which is only one of the common-places of metallic preparations prescribed in books on Indian chemistry. This may open up a new avenue of commercial intercourse between India and the rest of the world leading to the revival of Indian Chemistry in foreign countries at least, if not in India itself. Let truth triumph, no matter how, when, and where.

Prof. Arthur Becket Lamb of the Harvard university has kindly suggested to me the desirability of pointing out the ancient sources of information on which my compilation is based. This is a point to which I had given a careful consideration at the time I put the work in hand. The difficulty which stands in the way of my accepting the suggestion is peculiar to the manner in which Indian Chemistry has been transmitted to us by our fore-fathers. None of the treatises on the subject, hitherto discovered, claims originality : the author of every one of these books says that he is only a compiler, and there is nothing to disbelieve him, because all of these books have much in common with one another. It is manifestly evident that all of them drew on a common mass of materials transmitted by preceptors to disciples from

time out of memory. All that the ancient Hindus really cared for was knowledge without a scrupulous enquiry as to when and by whom a particular truth was discovered. There is another reason why I found the task of assigning sources of my information almost impossible. The existing books are so much wanting in method, so fragmentary, incomplete, and so full of mistakes made by generations of scribes that I had to correct the ancient texts to a great extent and to supply the missing links from the materials I collected from my preceptor who has got his own manuscript notes on the whole science, so much so that much of the language used in these volumes is my own composition, although the materials supplied are by no means of modern origin— they have been handed down to us by our remotest fore-fathers through generations of chemists most of whom have hitherto been ascetics retiring into the forests. It will be evident to a careful student of Hindu chemistry that the verses quoted in the texts and those composed by myself have been so inter-mingled with one another that it is practically im-possible to give references to works laid under contribution, in every case. Such being the case, all that is possible for me is to furnish my readers with a list of books and manuscripts consulted, and this I propose to do after I have completed the compilation of all the volumes.

I consider it to be a pleasant duty to express my heart-felt gratitude to Sir Jagadish Chandra Bose, Sir Chiman Lal Setalvad, Vice Chancellor, Bombay University, Dr. Gerald Druce, author of "History of science", Dr. Nagaoka of the Institute of Physical

and Chemical Research, Tokyo, Prof. H. K. Sen of the Calcutta University, Mr. Arthur Edward Waite, Prof. L. M. Dennis of the Cornell University, Prof. A. B. Lamb of the Harvard University, and many other well-known scholars, who have encouraged me by their sympathetic appreciation of my ambitious work.

I am also indebted to Pandit Nritya Gopal Panchatirtha, and to Professors Kshitish Ch. Chatterjee M. A. and Satkari Mookerji M. A. of the Deptt. of Sanskrit, Calcutta University, not only for the help they rendered to me in correcting the proof sheets but also for several suggestions received from them. The encouragement which I have received from the following members of the Institute of Hindu Chemistry also deserves mention :—Prof. Ramnarain Kayasth M. sc. B. Ag. of the Nagpur University, Messrs. Girija Nath Mookerji B. Sc., Asstt Analyst, Calcutta Corporation, Anindra Nath Chatterji, Sarojnath Bagchi, Ganapati Chakravarty M. A. and Upendra Nath Dutt (who has taken the trouble of compiling the Appendix to the present volume).

41-A Grey Street, Calcutta,
THE 26TH SEPTEMBER 1927. BHUDEB MOOKERJI

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ERRATA.

Page 215, line 10. Insert "reduced to ashes" after "hog, etc."
Page 226, line 11. Insert "Purification of Hingula (Cinnabar),
Page 237. For "Chapter Vi." read "Chapter Iv."
Page 251. Last but one line. For "copper" read "makshikam (pyrits)."
Page 78, line 24. Insert "purification of Bimala."
Page 208, line 26. Insert "purification of kankustham."
Page 259 line 7. Insert "Liquefaction of gold.

रसजलनिधिः ।

द्वितीयखण्डम् ।

मुखोपाध्यायोपाधिकेन
सिद्धवैद्य श्रीभूदेव देवशर्म्मणा रसाचार्य्येण
एम. ए. इत्युपनामधारिणा विरचितः ।

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विषयः पृष्ठम् ।

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तृतीयोऽध्यायः ।

चतुर्थोऽध्यायः ।

शुद्धिपत्रम् ।

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रसजलनिधिः ।

द्वितीयखण्डम् ।

(१)

ॐ कपालमालां परिसंदधानां
देवादिदेवोरसि वर्त्तमानाम् ।
कालीं करालां सकलेष्टदात्रीं
शिवां भजे हृत्कमले वसन्तीम् ॥

(२)

दीर्घं न चायुर्मम मृत्युकाल
आसीदतीशे सुकृशा च शक्तिः ।
चिन्ता सदा मे कथमद्रिकन्ये
आदेशकं ते परिपालयेयम् ॥

(३)

शक्तिप्रदे त्वं चर मर्म्ममध्ये
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(४)

एका त्वमेवाश्रितवत्सलासि
यद्दुर्वहां कार्य्यधुरां विवोढ़ुम् ।
सुताय शक्तिं प्रददासि तुष्टा
स्यादन्यथा कुत्र जड़प्रभावः ॥

(५)

तत् स्वीयकार्य्यं कुरु विश्वधात्रि
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प्रथमोऽध्यायः ।

अथोपरसाः ।

वज्राभ्रं माक्षिकद्वयं विमलश्च शिलाजतुः ।
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संग्राह्या यत्नत एते शुद्धये मारणाय च ॥
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कम्पिल्लश्च परो गौरीपाषाणो नवसारकः ।
कपर्दो वह्निजारश्च गिरिसिन्दूरहिङ्गुलौ ॥
मृद्दारश्शृङ्गभूनागौ साधारणरसाः स्मृताः ।
रससिद्धिकराः प्रोक्ताः सिद्धैश्च पूर्व्ववर्त्तिभिः ॥
रसाद्धीना गुणै रेते बहुभिस्तद्गुणैर्युताः ।
सेव्यन्ते च रसाभावे तस्मादुपरसाः स्मृताः ॥

CHAPTER I.

The following are the uparasas ;—

Group I—bajra abhra, two kinds of makshikam, bimala, shilajatu, tutthaka, śasyaka, chapala, and rasaka. These are to be collected for purification and incineration.

Group II—gandhaka, gairika, kasisa, kankshi, haritala, manas-shila, anjana, and kankustha. These are used in mercurial operations.

Group III—kampilla, gouripashana, navasara, kapardaka, agnijara, girisindura, hingula, and mriddarashringaka, and bhunaga.

They are called uparasas, simply because they possess some of the qualities of Rasa or mercury.

अथ अभ्रम् ।

तस्य गुणाः ।

गौरीतेजः परममृतं वातपित्तक्षयघ्नं *
प्रज्ञाबोधि प्रशमितरुजं वृष्यमायुष्यमग्र्यम् ।
बल्यं स्निग्धं रुचिदमकफं दीपनं शीतवीर्य्यं
तत्तद्योगैः सकलगदहृद् व्योम सूतेन्द्रबन्धि ॥

Abhram (Mica).

Mica is a great increaser of vitality. It removes from the system an abnormal excess of vayu (air) and pitta (animal heat), and does away with waste. It increases retentive faculties, cures diseases, and increases longevity, energy and strength. It soothes

* देव्यारजो भवेद्गन्धो धातुशुक्रं तथाभ्रकम् ।

the system, increases appetite, removes phlegm, increases the power of digestion of food, and produces a cooling effect. It cures all sorts of diseases, if administered with suitable anupanam (accompaniment). It helps the solidification of mercury.

तस्य प्रकाराः ।

राजहस्तादधस्ताद् यत् समानीतं घनं खनेः ।
भवेत् तत् फलदं परं निःसत्वं निष्फलं खलु ॥
पिनाकं नागमण्डूकं वज्रमित्यभ्रकं मतम् ।
श्वेतादिवर्णभेदेन प्रत्येकं तच्चतुर्व्विधम् ॥
पिनाकं पावकोत्तप्तं विमुञ्चति दलोच्चयम् ।
तत् सेवितं मलं बद्ध्वा मारयत्येव मानवम् ॥
नागाभ्रं नागवत् कुर्य्याद् ध्वनिं पावकसंस्थितम् ।
तद्भुक्तं कुरुते कुष्ठं मण्डलाख्यं न संशयः ॥
उत्प्लुत्योत्प्लुत्य मण्डूकं ध्मातं पतति चाभ्रकम् ।
तत् कुर्य्यादश्मरीरोगमसाध्यं शस्त्रतोऽन्यथा ॥
वज्राभ्रं वह्निसन्तप्तं निर्मुक्ताशेषवैकृतम् ।
देहलोहकरं तच्च सर्व्वरोगहरं परम् ॥

Different kinds of Mica.

The attributes mentioned above are possessed by that mica only which is procured from a mine, having a depth of twelve feet, at least. Mica, procured otherwise, has got no substance, and is therefore useless. There are four kinds of mica, viz. (1) Pinakam, (2) Nagam, (3) Mandukam and (4)

Bajram. Each of these is again subdivided into four different classes, according to their colour (viz. white, red, yellow, and black). If subjected to heat, Pinakam splits itself into pieces, so that its layers are separated from one another. If taken internally, it causes death by an incurable constipation. If subjected to heat, Nagam emits a hissing sound like that of a snake. Taken internally, it gives rise to a kind of leprosy, called mandalam. If subjected to heat, Mandukam leaps up like a frog Taken internally, it gives rise to stone disease, incurable, except by surgical operations. If subjected to heat, Bajram is freed from all sorts of impurities, and cures all sorts of diseases and strengthens the body, if taken internally, in the prescribed manner.

वर्णभेदेन तस्य प्रकाराः ।

श्वेतं रक्तं च पीतं च कृष्णमेवं चतुर्व्विधम् ।
श्वेतं श्वेतक्रियासूक्तं रक्ताभं रक्तकर्मणि ॥
पीताभमभ्रकं यत् तु श्रेष्ठं तत् पीतकर्मणि ।
चतुर्व्विधं वरं व्योम यद्यप्युक्तं रसायने ।
तथाऽपि कृष्णवर्णाभ्रं कोटीकोटीगुणाधिकम् ॥
स्निग्धं पृथुदलं वर्णसंयुक्तं भारतोऽधिकम् ।
सुखनिर्म्मोच्यपत्रं च तदभ्रं शस्तमीरितम् ।

Mica, again, is of four different kinds, viz, white, red, yellow, and black, White mica is used in processes imparting a white colour to a substance (*e. g.* in transformation of lead into silver). Red mica is used in imparting a red colour to a metal. Yellow

mica is used in processes imparting a yellow colour to a substance, as for example, in the transformation of base metals into gold.

Although these four different kinds of bajra-mica have been recommended for use in medicines, the black bajra mica is infinitely superior to the other three kinds in efficacy. Only that kind of mica is to be made use of in medicines which is soft, full of layers, coloured, heavy, and is easily capable of being split up into its constituent layers.

सचन्द्रिकमभ्रं न व्यवहार्य्यम् ।

सचन्द्रिकं च किट्टाभं व्योम न ग्रासयेद् रसः ।
ग्रासितश्चानियोज्योऽसौ लोहे चैव रसायने ॥
निश्चन्द्रिकं मृतं व्योम सेव्यं सर्व्वगदेषु च ।
सेवितं चन्द्रसंयुक्तं मेहं मन्दानलं चरेत् ॥
यैरुक्तं युक्तिनिर्मुक्तैः पत्राभ्रकरसायनम् ।
तैर्दिष्टं कालकूटाख्यं विषं जीवनहेतवे ॥
सत्त्वार्थं मारणार्थं च योजयेच्छोधिताभ्रकम् ।
अन्यथा त्वगुणं कृत्वा विकरोत्येव निश्चितम् ॥

Mica should be deprived of its glaze.

Mica should be deprived of its glaze. Mercury does not swallow the mica which has not been deprived of its natural glaze, and which appears to be dirty. Even if such a mica is swallowed by mercury, it should not be used in medicines, as well as in metallurgical operations. The mica which has been

deprived of its natural glaze (by being incinerated in the manner described below), should be used in all sorts of diseases. Mica, with a glazed surface, if taken internally, gives rise to spermatorrhoea and loss of appetite. Those who recommend the use in medicines, of mica, as it is found in nature, do no better than prescribe the use of kalakuta poison, for the purpose of saving human life. Only that mica, which has been duly purified, should be used for the purpose of extraction of essence as well as for incineration; otherwise, if taken internally, it will give rise to various kinds of disturbances in the system.

अथ अभ्रस्य शोधनम्।

प्रथमोविधिः।

प्रतप्तं सप्तवारैश्च निक्षिप्तं काञ्जिकेऽभ्रकम्।
निर्दोषं जायते नूनं प्रक्षिप्तं चापि गोजले॥
त्रिफलाक्कथिते चापि गवां दुग्धे विशेषतः।
ततो धान्याभ्रकं कृत्वा मारणीयं प्रयत्नतः॥ *

Purification of Mica.

First Process.

Mica is purified, if it is heated strongly, (preferably by means of a bellows) for seven times and immersed each time, either in (1) kanji, or (2) cow's urine; then heated for seven times and immersed

* पाठान्तरम्—त्रिफलाक्काथगोमूत्रक्षीरकाञ्जिकसेवितम्।
भस्त्राग्नौ सप्तधा व्योम तप्तं तप्तं विशुध्यति॥

each time in the decoction of triphala ; and then again, heated for seven times, and immersed in milk with especial care. It is then to be reduced to what is called, "Dhanya-abhram", and incinerated in the prescribed manner.

द्वितीयोविधिः ।

अथवा बदरीकाथे ध्मातमभ्रं विनिक्षिपेत् ।
मर्द्दितं पाणिना शुष्कं धान्याभ्रादतिरिच्यते ॥

Second process.

Mica may also be purified, if it is heated and then immersed, while still hot, into a decoction of hog plums. It is next to be rubbed with two hands and dried. Thus reduced to powder, it becomes finer and better than Dhanya-abhram. (It is next to be incinerated exactly in the same way as Dhanya-abhram).

तृतीयोबिधिः ।

आदौ सुतापितं कृत्वा गगनं सप्तधा क्षिपेत् ।
निर्गुण्डीस्वरसे सम्यग् गिरिदोषप्रशान्तये ।
ततो धान्याभ्रकं कृत्वा मारणीयं प्रयत्नतः ॥

Third process.

Mica is purified, if it is heated strongly for seven times, and immersed each time in the juice of nirgundi leaves. Mica, thus purified, is to be reduced to Dhanya-abhram, and incinerated.

चतुर्थीविधिः ।

कृष्णाभ्रकं धमेद्‌ वह्नौ ततः क्षीरे विनिक्षिपेत्‌ ।
भिन्नपत्रन्तु तत्‌ कृत्वा तण्डुलीयाम्लयोर्द्रवैः ।
भावयेदष्टयामं ततं तदैवाभ्रं विशुध्यति ॥

Fourth process.

Black mica is to be heated and immersed in milk. Its layers are then to be separated from one another and subjected to bhavana with the juice of tanduliyaka and a sour 'non-metallic liquid. Mica is thus purified.

धान्याभ्रम्‌ ।

चूर्णाभ्रं शालिसंयुक्तं वस्त्रबद्धं हि कांजिके ।
निर्यातं मर्द्दनाद्‌ वस्त्राद्‌ धान्याभ्रमिति कथ्यते ॥

Dhanya-abhram.

Powdered mica, mixed with shali paddy, is to be contained in a piece of cloth, and formed into a bundle, which is to be kept immersed in kanji for some time. This is then to be rubbed with two hands, and pressed in the midst of kanji, with the result that very minute particles of mica will come out of the bundle, and deposit themselves at the bottom of the pot containing the kanji. These minute particles of mica are called, "Dhanya-abhram" or "paddy mica."

अथ अभ्रस्य मारणम् । *

प्रथमोविधिः ।

धान्याभ्रकं प्रयत्नतः पिष्ट्वा मत्स्याक्षिकारसैः ।
चक्रीं कृत्वा विशोष्याथ पुटेदर्द्धभके पुटे ॥
पुटेदेवं हि षड्वारं पौनर्नवरसैः सह ।
कलांशटंकणेनापि संमर्द्य कृतचक्रिकम् ॥
अर्द्धेभाख्यपुटैस्तद्वत् सप्तवारं पुटेत् खलु ॥
एवं वासारसेनापि तण्डुलीयरसेन च ।
प्रपुटेत् सप्तवारेण पूर्व्वप्रोक्तविधानतः ।
एवं सिद्धं घनं सर्वयोगेषु विनियोजयेत् ।

First process.

Dhanya-abhram is to be rubbed carefully with the juice of matsyakshi, made into a cake, dried and subjected to heat by means of a half Gajaputam. This process is to be performed for six times. The mica is next to be rubbed with one-fourth its weight of tankanam and a sufficient quantity of the juice of punarnava, and then made into a cake which is to be subjected to heat by means of a half Gaja-putam. The process is to be performed for seven times. It is similarly to be subjected to putam for seven times each, after having been previously rubbed with the juices of basaka and tanduliyaka. Mica, thus incinerated, may be used in medicines as well as in metallurgical operations.

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* धान्याभ्रभस्म अरुणकृष्णभेदेन द्विविधम् ।

द्वितीयो विधिः।

धान्याभ्रं कासमर्द्दस्य रसेन परिमर्द्दितम्।
पुटितं दशवारेण म्रियते नात्र संशयः।
तद्वन्मुस्तारसेनापि तण्डुलीयरसेन च॥

Second process.

Dhanya-abhram is incinerated, if it is subjected to putam for ten times, after having been rubbed each time with the juice of kasamarda. The same purpose is served, if the juice of musta or of tanduliya is used instead of kasamarda.

तृतीयो विधिः।

पीतामलकसौभाग्यपिष्टं चक्रीकृताभ्रकम्।
पुटितं षष्ठवारेण सिन्दूराभं प्रजायते।
क्षयाद्यखिलरोगघ्नं भवेद् रोगानुपानतः॥

Third process.

Mica is incinerated and assumes the colour of red vermilion, if it is subjected to putam for six times, after having been rubbed each time, with haritalam, the juice of amalaki, and tankanam. This mica cures pthisis and all other diseases, if used with suitable anupanam or accompaniment.

चतुर्थोविधिः।

वटमूलत्वचः क्वाथैस्ताम्बूलीपत्रसारतः।
वासामत्स्याक्षिकाभ्यां वा मीनाक्ष्या
सकठिल्लया॥

पयसा वटवृक्षस्य मर्द्दितं पुटितं घनम् ।
भवेद्द विंशतिवारेण सिन्दूरसदृशप्रभम् ॥

Fourth process.

Mica is incinerated and assumes the colour of red vermilion, if subjected to putam for 20 times, after having been rubbed each time with the juice of any one of the following ;—(1) bark of the root of a banyan tree, (2) leaves of tambuli (betel) plant, (3) basa and matsyakshi, (4) matsyakshi and karaballi, or (5) milk of banyan tree.

पञ्चमो विधिः ।

गन्धर्वपत्रतोयेन गुड़ेन सह भावितम् ।
ऊर्द्ध्वाधो बटपत्राणि निश्चन्द्रं त्रिपुटैः खगम् ॥
क्षुधां करोति चात्यर्थं गुञ्जार्द्धमितसेवया ।
तत्तद्रोगहरैर्योगैः सर्व्वरोगहरं परम् ॥

Fifth process.

Mica is incinerated by being subjected to putam for three times, after having been subjected to bhavana, each time, with the juice of eranda leaves, mixed with molasses. Mica, thus incinerated, increases appetite to a great extent, and cures all sorts of diseases, if taken in doses of half a gunja a day, combined with suitable anupanam.

षष्ठो विधिः ।

पुनर्नवामेघनादाद्रवैर्धान्याभ्रकं दिनम् ।
मर्दयित्वा गजे पचेत् चैवमौस्तकशौरणैः ।
द्रवैपुनर्विमर्द्य तत् पृथक् देयं पुटत्रयम् ॥

एवमर्कदलैर्वेष्ट्य देयं वा मोचसंपुटे ।
निश्चन्द्रं जायते ह्यभ्रं सर्व्वयोगेषु योजयेत् ॥

Sixth process.

Dhanya-abhrakam is to be subjected to Gaja-putam, after having been rubbed for one day with the juice of punarnava. It is next to be subjected to Gaja-putam, after having been rubbed for one day with the juice of meghanada. It is then to be subjected to putam for three times, after having been rubbed with the juices of tamarind, mustaka, and shurana, respectively. It is next to be covered with the leaves of arka or with the petals of banana flower, and subjected to putam. Thus treated, mica becomes deprived of its glaze, and may be used in medicines and metallurgy.

सप्तमो विधिः ।

गोघृतैः त्रिफलाक्वाथैः पक्त्वा च पूर्व्ववत् पचेत् ।
पञ्चविंशपुटैरेवं कासमर्दद्रवैः पचेत् ॥
देयं पुटत्रयं क्षीरैर्मर्दयेच्च पुटे पुटे ।
निश्चन्द्रं जायते ह्यभ्रं जरामृत्युरुजापहम् ॥

Seventh process.

Dhanya-abhram is to be roasted with cow's ghee and decoction of triphals, and subjected to putam for twenty five times. It is next to be roasted with the juice of kasamarda. It is then to be subjected to putam for three times, having previously been rubbed with milk, every time. The mica, thus deprived of its glaze, may be used in medicines for the removal of diseases, senility, and premature death.

अष्टमो विधिः ।

धान्याभ्रकस्य भागैकं द्वौ भागौ टंकणस्य तु ।
पिष्ट्वा तदन्धमुषायां रुद्ध्वा तीव्राग्निना पचेत् ।
स्वभावशीतलं चूर्णं सर्वरोगेषु योजयेत् ॥

Eighth process.

One part of Dhanya-abhram and two parts of tankanam are to be rubbed together and subjected to heat in a blind crucible by means of a strong fire. When cooled of itself, after the extinction of fire, the mica finely powdered, can be used in all sorts of diseases.

नवमो विधिः ।

धान्याभ्रकमम्लपिष्टं पुटेत् तप्तेऽम्लसेचनम् ।
तत् पिष्ट्वा धारयेत् खल्वे भाव्यमम्लारणालकैः ॥
तप्तं तप्तं चारणालैः पाच्यं शोष्यं पुनः पुनः ।
पुटे वा धमने वै तद् विंशत्कृत्वोऽति यत्नतः ॥
ततस्तप्तं क्षिपेद् दुग्धे पिष्ट्वाऽथ शोषयेत् पुनः ।
दुग्धतप्तं पुटे पचेत् तप्तं दुग्धेन सेचयेत् ॥
एवं त्रिसप्तवारश्च शोष्यं पेष्यं पुटे पचेत् ।
पिष्ट्वा तच्च पचेत् स्थाल्यां लौहदर्व्या विचालयेत् ॥
दुग्धस्थश्च ततो दुग्धैः पचेत् पुटे पुनः पुनः ।
एवं सप्तदिनं पक्त्वा दिवा चैवं पुटेन् निशि ॥
तण्डुलीवज्रवल्लिकातालमूलीपुनर्नवा ।
चांगेरीमरिचेनैवं बलायाः पयसा सह ॥

एभिश्च पेषयेच्चाभ्रं प्रत्येकं तत् त्र्यहं त्र्यहम् ।
पचेत् तत्सम्पुटे स्थितं प्रत्येकेन पुनः पुनः ।
पिष्टं पुनः पुटे घृष्टं कज्ज्वलाभं मृतं भवेत् ॥

Ninth process.

Dhanya-abhram is, first of all, to be rubbed with a sour vegetable juice and subjected to putam. While still hot, it is to be saturated with a sour vegetable juice, rubbed well, and subjected to bhavana with sour aranala. It is next to be boiled with aranala which is to be dried by the application of heat. This process is to be performed for 20 times, either by heating in the ordinary way or by putam. Care should be taken that heating is commenced in a succeding stage, while the mica is still hot by the preceding heating.

Next, the mica is to be immersed, while still hot, in milk, rubbed with it, and dried up by application of heat. Then, while still hot, it is to be subjected to putam, and then while still hot, is to be soaked with fresh milk, which is to be dried up by heat. This process of soaking and rubbing the mica with milk, and then drying it up by application of heat, and then subjecting it to putam is to be performed 21 times. It is to be turned frequently in a cauldron or in an earthen pot, at the time it is roasted, after it has been soaked and rubbed with milk.

It is next to be roasted for seven days, during day time, and subjected to putam at night.

The mica is then to be rubbed for three days each with the juices of tanduliaka, asthisanhara, talamuli, punarnava, changeri, maricha, and bala, and subjected to putam after every act of rubbing. The prescribed

juice, in this case, is to be rubbed with the mica, while it is still hot by the previous putam, and the rubbing is to take place in the hot samputam itself. Mica, thus incinerated, turns black.

दशमो विधिः ।

धान्याभ्रकस्य शुद्धस्य दशांशं मरिचं क्षिपेत् ।
पेषयेदम्लवर्गेण चाम्ले भाव्यं दिनत्रयम् ॥
तत् शुष्कं संपुटेदथ खदिराङ्गारकैर्दृढम् ।
ऊर्द्ध्वं वपत्रं निरोप्याथ सेचयेदम्लकेन तत् ॥
अगस्त्यशिग्रुवर्षाभूमूलत्वक्पत्रजै रसैः ।
पिष्ट्वाभ्रं सेचयेत् तेन षड्धान्याम्लरसेन च ॥
सितामध्वाज्यगोक्षीरदध्यम्लै रपि चाभ्रकम् ।
मत्स्याद्याः करवीरस्य द्रवैः पिष्ट्वा त्रिधा पचेत् ।
ततो गजपुटे पाकात् निश्चन्द्रं जायतेऽभ्रकम् ॥

Tenth process.

Purified Dhanya abhram with one tenth its weight of maricha is to be rubbed with the amla-varga, and then subjected to bhavana with a sour vegetable liquid for three days. When dried, it is to be subjected to putam by a strong fire made of khadira wood. After removal of the upper basin, the mica is to be saturated with a sour vegetable liquid. It is then to be rubbed with the juices of the root, bark, and leaves, respectively, of basaka, shigru, and punarnava, and then saturated for six times with six different kinds of sour vegetable juices. The mica is then to be rubbed, with sugar, honey, clarified

butter, cow's milk, curd, amlas, juices of matsyakhshi, and karabira, for three times, and subjected to putam each time with the result that it is incinerated and deprived of its glaze.

एकादशो विधिः।

धान्याभ्रकं द्रवैर्मद्यं मत्स्याक्षीतुलसीभवैः।
मूलजैः कोकिलाक्षस्य कुमारीश्वेतदूर्व्वयोः॥
व्याघ्रीकन्दपुनर्नवा दिनमेतैर्विमर्दयेत्।
कुञ्जराख्यैः पुटैः तप्तं पिष्ट्वा पिष्टा पचेत् पुनः॥
तद्वत् पञ्चामृतैः पाच्यं पिष्टा पिष्ट्वा तु सप्तधा।
एवं निश्चन्द्रतां यातं सर्वरोगेषु योजयेत्॥

Eleventh process.

Dhanyabhrakam is to be rubbed for one day with the juice of each of the following :—matsyakhshi, tulasi, root of kokilaksha, root of kanya, root of white durva, byaghri kanda, and punarnava, and subjected to heat in a Gaja putam after each day's rubbing. Every act of rubbing in this case is to be effected while the mica is still hot by a pevious heating. The mica is similarly to be rubbed with the panchamitram and then heated by means of a Gajaputam for seven times. The mica, thus deprived of its glaze, may be used in all sorts of diseases.

द्वादशो विधिः।

धान्याभ्रं टंकणं तुल्यं गोमूत्रैस्तुलसीजलैः।
वाकुचीशूरणोद्भवैर्दिनं पिष्टा पुटे पचेत्॥

जयन्त्याश्च द्रवैः पश्चान् मर्दयित्वा त्रिधा पुटेत् ।
क्रिययैवं चतुर्वारं निश्चन्द्रं सर्वरोगजित् ॥

Twelfth process.

Dhanya abhram and an equal quantity of tankanam are to be rubbed tegether with each of the following, and subjected to putam after every act of rubbing is performed :—Cow's urine, juice of tulasi, juice of bakuchi, and juice of shurana. It is next to be rubbed with the juice of jayanti, and subjected to putam for three times. All this process, performed for four times, deprives the mica of its glaze, and makes it fit for use in all sorts of diseases.

त्रयोदशो विधिः ।

धान्याभ्रकं रविक्षीरै रविमूलद्रवैश्च वा ।
मर्दितं पुटितं पश्चात् सप्तधा म्रियते ध्रुवम् ॥

Thirteenth process.

Dhanya abhram is to be rubbed with the milk of arka or with the juice of the root of arka, and then subjected to putam. Performance of this process for seven times causes the incineration of mica.

चतुर्दशो विधिः ।

धान्याभ्रकं तुषाम्लैरातपे स्थापयेद्द दिनम् ।
मर्दयित्वा चतुर्यामं गोलं गजपुटे पचेत् ॥

एवं गोक्षीरमध्यस्थं मर्द्दयित्वा पुटे पचेत् ।
एवं कार्पासतोयेन स्थाप्यं पेष्यं पुटे पचेत् ॥
ततोऽम्लैश्चैव कार्पासैर्गवां क्षीरैः पुनः पुनः ।
मर्द्दनं घर्म्मपाकञ्च पुटञ्चैवमनुक्रमात् ।
एकविंशपुटेनैवं मृतं भवति निश्चितम् ॥

Fourteenth process.

Dhanya abhram is to be immersed in kanji and kept exposed to the sun for one day. It is then to be rubbed for twelve hours, made into a lump, and heated by Gajaputam. It is next to be immersed in cow's milk in the same way and similarly rubbed and heated. It is then to be immersed in the juice of cotton leaves, exposed to the sun for one day, and then rubbed and heated, as before. The mica is then to be dried in the sun, and heated by putam over and over again, after having been rubbed each time with one of the following in order of their occurrence :— sour vegetable juices, juice of cotton leaves, and cow's milk. Twenty-one such putams will cause the incineration of the mica.

पञ्चदशो विधिः ।

कृत्वा धान्याभ्रकं तत्तु शोषयित्वा तु मर्द्दयेत् ।
अर्कक्षीरैर्दिनं मर्द्यमर्कमूलद्रवेण वा ॥

वेष्टयेदर्कपत्रैस्तु सम्यग् गजपुटे पचेत् ।
पुनर्मर्द्य पुनः पाच्यं सप्तवारं प्रयत्नतः ॥
ततो वटजटाक्काथैस्तद्वद् देयं पुटत्रयम् ।
म्रियते नात्र सन्देहः सर्व्वरोगेषु योजयेत् ॥

Fifteenth process.

Dhanya-abhram is to be duly dried up, and rubbed for one day with the milk of arka or the juice of arka roots. It is then to be wrapped up with arka leaves and heated by Gajaputam. This process is to be performed carefully for seven times. The mica is then to be rubbed with a decoction of the aerial roots of a banyan tree, and then heated by putam. The last mentioned process is to be performed for three times, leading to the incineration of mica, which may now be used in all sorts of diseases.

षोड़शो विधिः ।

धान्याभ्रकं समादाय मुस्ताक्काथैः पुटत्रयम् ।
तद्वत् पुनर्नवानीरैः कासमर्द्दरसैस्तथा ॥
नागवल्लीरसैर्युक्तं सूर्य्यक्षीरैः पृथक् पृथक् ।
दिने दिने मर्दयित्वा क्काथैर्वटजटोद्भवैः ॥
दत्वा पुटत्रयं पश्चात् त्रिः पुटेन् मुषलीजलैः ।
त्रिर्गोक्षुरकषायेण त्रिः पुटेद् वानरीरसैः ॥

मोचकन्दरसैः पाच्यं त्रिवारं कोकिलाक्षजैः ।
रसैः पुटेत लोध्रस्य क्षीरैरेकपुटं ततः ॥
दध्ना घृतेन मधुना स्वच्छया सितया तथा ।
एकमेकं पुटं दद्यादभ्रस्यैवं मृतिर्भवेत् ॥
सर्वरोगहरं व्योम जायते योगवाहकम् ।
कामिनीमददर्पघ्नं शस्तं पुंस्त्वोपघातिनाम् ।
वृष्यमायुष्करं शुक्रमेधासन्तानकारकम् ॥

Sixteenth process.

Dhanya abhram is to be rubbed for three times, with decoction of musta, and heated every time by a putam. It is then to be rubbed for three times, with each of the following, and subjected to putam after each act of rubbing :—juice of punarnava, juice of kasamarda, juice of tambulam, milk of arka, decoction of aerial roots of banyan, juice of mushali, decoction of gokshura, juice of banari, juice of the tuber of banana, juice of kokilaksha, and juice of lodhra. The mica is then to be rubbed for one time with each of the following and heated by putam, after every act of rubbing—juice of lodhra, milk, curd, clarified butter, honey, and white sugar. Mica, thus incinerated, cures all sorts of disease, if applied with suitable anupanam. It increases masculine strength, power of retention of semen, nutrition, longevity, growth of semen, retentive faculties, and the power of begetting children.

सप्तदशो विधिः ।

रम्भाद्भिरभ्रं लवणेन पिष्टा
चक्रीकृतं टंकणमध्यवर्त्ति ।
दग्धेन्धनेषु व्यजनानिलेषु
स्नुह्यर्कमूलाखुपुटैश्च सिद्धम् ॥

Seventeenth process.

Mica is to be rubbed with the juice of a banana plant and salt, and made into a ball, which is to be kept inside tankanam. This is then to be put inside a hole made into the root of snuhi or arka, the hole being closed tightly with a portion of the same root. The whole thing is now to be subjected to heat by a fire made of charcoal, and kept kindled by a fan.

अष्टादशो विधिः ।

दुग्धत्रयं कुमार्य्यम्बु गंगापत्रं नृमूत्रकम् ।
वटांकुरमजारक्तमेभिरभ्रं सुमर्दितम् ।
शतधा पुटितं भस्म जायते पद्मरागवत् ॥

Eighteenth process.

Mica is incinerated and assumes the colour of a lotus flower, if subjected to putam for a hundred times, after having been rubbed well with each of the following :—milk of banyan, milk of arka, milk of

snuhi, juice of kanya, juice of musta, man's urine, juice of the aerial roots of banyan tree, and goat's blood.

ऊनविंशो विधिः ।

गवां मूत्रेण धान्याभ्रं मर्दयित्वा पुनः पुनः ।
शरावसंपुटे रुद्ध्वा पुटेद्‌ यत्नात्‌ सहस्रशः ॥

Nineteenth process.

Dhanya abhram is incinerated, if subjected to putam for one thousand times, after having been rubbed each time with cow's urine.

विंशो विधिः ।

शुष्कं धान्याभ्रकं मुस्तं शुण्ठी षड्भागयोजितम्‌ ।
मर्दयेत्‌ काञ्जिकेनैव दिनं चित्रकजै रसैः ॥
ततो गजपुटं दद्यात्‌ तस्मादुद्धृत्य मर्दयेत्‌ ।
त्रिफलावारिणा तद्वत्‌ पुटेदेवं पुटैस्त्रिभिः ॥
बलागोमूत्रमूषलीतुलसीशूरणद्रवैः ।
मर्दितं पुटितं वह्नौ त्रिवारैश्च व्रजेन्‌ मृतिम्‌ ॥

Twentieth process.

Dhanya abhram, properly dried, an equal quantity of musta, and six times its weight of shunthi, are to be rubbed for one day each with kanji and the juice of chitraka, and then subjected to Gajaputam. It is then to be rubbed with the decoction of triphala, and subjected to putam in the same manner for

three times. It is next to be rubbed with each of the following, and heated by putam, for three times, after each act of rubbing :—juice or decoction of bala, cow's urine, juice of mushali, juice of tulasi, and juice of shuranam.

एकविंशो विधि ।

चांगेरी स्वांगनिर्यासैर्धान्याभ्रकं विमर्दयेत् ।
तण्डूलीयकमूलस्य रसेनापि ततः परम् ॥
ततोऽस्मिन् खदिराङ्गारैः प्रापिते ह्यग्निवर्णताम् ।
क्षिपेत् पुनः पुनः क्षीरे यथा निश्चन्द्रिकं भवेत् ॥

Twenty-first process.

Dhanya abhram is to be rubbed, first of all, with the juice of changeri, and then with the juice of tanduliyaka. It is then to be heated. by means of khadira wood, and, when red hot, to be thrown into milk. The process is to be repeated until the mica is deprived of its glaze.

द्वाविंशो विधिः ।

धान्याभ्रं गुड़तुल्यं च श्रेष्ठक्षीरेण मर्दितम् ।
कृतं चक्राकारं शुष्कं सम्यग् गजपुटे पंचेत् ॥
ततो धत्तूरपत्तूरकुमारीशशिवाटिकाः । ❋
प्रत्येकस्वरसेनैव पुटादाशुमृतिर्भवेत् ॥

❋ पत्तूरम् जलपिप्पली । शशिवाटिकोत्पलम् ।

Twenty second process.

Dhanya abhram with an equal quantity of molasses is to be rubbed with excellent milk, made into a cake, dried, and then heated by Gajaputam. It is next to be rubbed separately with the juice of each of the following, and subjected to heat by Gajaputam, everytime it is so rubbed :—dhattura, gaja pippali, kanya, and utpalam. Mica, thus treated, becomes incinerated.

त्रयोविंशो विधिः ।

कस्यचिदपि घासस्य रसेनाभ्रं विमर्दितम् ।
पुटितं दशधा भस्म निश्चन्द्रश्च प्रजायते ॥

Twenty third process.

Dhanya abhram is to be rubbed with the juice of any grass and subjected to putam. Performance of this process for ten times will lead to the incineration of the mica, which will also be deprived of its glaze.

चतुर्विंशो विधिः ।

धान्याभ्रकस्य भागौ द्वौ भागैकं शुद्धगन्धकम् ।
वटक्षीरेण संमर्द्य ह्यन्धमूषे निरोधयेत् ।
पचेद् गजपुटेनैकं वारमेवं मृतं भवेत् ॥

Twenty-fourth process.

Two parts of Dhanya abhram and one part of purified sulphur are to be rubbed together with the

milk of banyan, and subjected to Gajaputam for once only. This will result in the incineration of mica.

पञ्चविंशो विधिः ।

पुनर्नवा कुमारी च चपला वानरी तथा ।
मुषली चेक्षुवल्ली च तथा चामलकीरसः ॥
प्रत्येकेन पुटं दद्यात् सप्तवारं पुनः पुनः ।
अर्कसेहुण्डदुग्धेन मर्दयेत् पुटयेत् तथा ।
एवं तन् म्रियते वज्रं सर्वरोगहरं परम् ॥

Twenty-fifth process.

Dhanya abhram is incinerated and cures all sorts of diseases, if rubbed with each of the following for seven times, and subjected to putam after every act of rubbing :—punarnava, kumari, shunthi, banari, mushali, ikshu, amalaki, milk of arka, and milk of shehundu.

षड्विंशो विधिः ।

अभ्रकं त्रिफलाशुद्धं क्षिपेच्छुक्ते चतुर्गुणे । *
चत्वारिंशद् दिनान्येव स्थापयेत् तत्र बुद्धिमान् ॥

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* अत्र शुक्तप्रस्तुतविधिः कथ्यते—
अन्नमण्डस्य प्रस्थैकं तथा पञ्चाढ़कोन्मितम् ।
काञ्जिकं कुड़वौ दध्नो गुड़प्रस्थोऽम्लमूलकात् ॥

पलार्द्धं पारदं शुद्धं पलं वङ्गुलजं नवम्।
कुसुमं च समादाय मर्दयेद् भिषगुत्तमः॥
उभयोर्गुटिकामेकां कृत्वा तत्रैव निःक्षिपेत्।
दण्डेन चालयेन् नित्यं त्रिदिनं नाधिकं ततः॥
कथिते समये पूर्णे खल्वे क्षिप्त्वा विमर्दयेत्।
घनत्वमागतं दृष्ट्वा चक्रिकां कारयेद् बुधः॥
घर्मे संशोष्य विधिना ततो गजपुटे पचेत्।
पुनः शुक्तान्तरेणैव मर्दयेदेकवासरम्॥
वनोत्पलैः पचेदेवं कुर्य्याद् वारत्रयं ततः।
भस्मीभूतमिदं खादेद् गुञ्जामात्रं निरन्तरम्॥
अन्धोऽपि दिव्यदृष्टिः स्यात् तीव्रो वह्निश्च जायते।
वातपित्तकफोद्भवांस्तथैव रुधिरामयान्॥
प्रमेहान् नाशयेत् सर्व्वान् नात्र कार्य्या विचारणा।
अतीव पुष्टिदायकं व्रणतृड् नाशनं परम्।
कुष्ठप्लीहोदरग्रन्थिक्रमिक्षयविनाशनम्॥

Twenty sixth process.

Dhanya abraham, duly purified, especially with

पलान्यष्टौ शोषितार्द्रात् पलषोड़शिकं तथा।
कणाजीरकसिन्धूत्थहरिद्रामरिचं तथा॥
द्विपलं भाविते भाण्डे घृतेनाष्टदिनं स्थितम्।
सिद्धं भवति तच्छुक्तं यदावताम्यं गृह्यते।
तदा देयं चतुर्जातं पृथक् कर्षत्रयोन्मितम्॥

decoction of triphala, is to be kept immersed, for forty days, in four times its quantity of shuktam.* Then, two tolas of purified mercury, four tolas of fresh babbula flower, and four tolas of fresh gum of babbula, are to be rubbed together, made into a ball which is to be thrown into the shuktam. The whole thing is next to be turned by means of a rod every day, for three days only, (and by no means for a longer period) and after the expiry of these days, to be rubbed together in a mortar and made into a cake, when sufficiently condensed. This cake is to be dried in the sun and heated in a Gajaputam. It is next to be rubbed with a fresh quantity of shuktam for one day only, and then subjected to putam by a fire made of cowdung cakes, found dried in the pasturage. These last two processes, viz. rubbing with a fresh quantity of shuktam, and heating by cowdung cakes, if performed for three times, result in the incineration of the mica. If taken in doses of one gunja a day, it even enables a blind man to recover his eye sight. It also cures all sorts of diseases, and especially, indigestion, impurities of blood, gonorrhoea, carbuncles, abnormal thirst, leprosy, enlargement of spleen, diseases pertaining to

* Shuktam is prepared as follows :—

One prastha of boiled rice made into a paste (by being over-boiled, rubbed, and sifted through a piece of fine cloth), 20 prasthas of kanji, 30 tolas of curd, one prastha of molasses, 32 tolas of the residues of kanji, 64 tolas of shunthi, and eight tolas of pippali, jira, saindhava, haridra, and maricha, combined—all these things are to be kept for eight days, in an earthen vessel, previously soaked with clarified butter. It is then to be filtered and mixed with three tolas each of guda twaka, ela, naga keshara, and patri.

the belly and the stomach, scrofula, worms, and consumption. It is moreover very nutritive.

सप्तविंशो विधिः।

वज्राभ्रमर्कदुग्धै र्धेनुसलिलैर्ब्राह्मीरुदन्तीवला
वासाचित्रकशाल्मलीविल्ववराकुष्माण्डकादाड़िम
जातीगोक्षुरशङ्खपुष्पलतिकामेदामृतावर्वरी
द्राक्षामूलकराक्षसीतुलसिकामुण्डीविशालामदा
गोजिह्वासलिलैर्विदारिलतिकाशृङ्गयग्रगन्धाजटा
शतपुष्पातपनोद्भवैश्च रसकैः संमर्दयेद् वैद्यराट्।
रात्रौ संपरिपाचयेद् गजपुटे सप्तैव वारान् पृथक्
न्यग्रोधस्य जटारसस्य सततं केशेशतोयस्य च
भावाश्चैवं पुटाश्च विंशतिमिता घृष्ट्वा कपित्थोद्भवैः
चिंचिन्याः फलकोद्भवैश्च सलिलै र्भिषक् पुटेद्
यत्नतः॥
पश्चान् निम्बुरसेन धेनुपयसा संमिश्रय गोड़स्थश्च
दघ्ना खण्डघृतस्थरम्यमधुना वारांश्च पञ्चादश।
पश्चाच् चन्द्रिकयाभिवर्जितमथाभ्रं वै सुशुद्धं भवेद्
रक्तं रम्यं सुसेव्यमवनीशानां गणैः सर्वदा॥

Twenty seventh process.

Dhanyabhram is to be rubbed for seven days with each of the following during day time, and heated by

Gaja putam every corresponding night :—milk of arka, cow's milk ; juices of—brahmi, rudanti, bala, basa, chitraka, shalmali, vilba, haritaki, kushmanda, dadima, jati, gokshura, shankha puspi, meda, ananta mula, barbari, draksha, mula, rakshasi (muramansi), tulasi, mundi, indrabaruni, mada (dhataki flower), gojihva, vidari creeper, shringi (karkata shringi), bacha, jatamansi, shata puspa, and arka. The mica is next to be subjected to bhavana for twenty times with each of the two juices, viz, the juice of the aerial roots of banyan, and the juice of kesharaja, and heated by putam after every such act of bhavana. It is next to be rubbed separately with the juices of kapittha and seeds of chinchini (tamarind), and heated by putam after each act of rubbing. It is next to be subjected to putam for fifteen times, after having been rubbed each time with the following, mixed together :—lemon juice, cow's milk, solution of molasses, curd, khanda guda, clarified butter, and pure honey. Thus treated, the mica will be deprived of its glaze and assume a red appearance. This will then be fit for use by kings.

अष्टाविंशो विधिः ।

नागवलाभद्रमुस्तावटदुग्धेन चाभ्रकम् ।
मर्द्यं वटजटातोयैः हरिद्रावारिणा तथा ॥
मञ्जिष्ठाक्वाथतोयेन ततो मर्द्यं यथाक्रमम् ।
पुटेन मर्दनात् परं भस्म स्यादरुणप्रभम् ॥

Twenty eighth process.

Mica is to be rubbed with each of the following :—nagabala, bhadramusta, milk of banyan, juice of the aerial roots of banyan, juice of haridra, and subjected to putam after its being rubbed with each of them. Mica thus incinerated, assumes a red appearance.

ऊनत्रिंशो विधिः ।

धान्याभ्रकं प्रयत्नतः पिष्टा मत्स्याक्षिकारसैः ।
चक्रीकृत्य विशोष्याथ षोढ़ा गजपुटे पचेत् ॥
पुटेदेवं हि षड़् वारं पुनर्नवारसैः सह ।
कलांशटंकणेनापि संमर्द्य चक्रिकाकृतम् ॥
ऊर्द्ध् भागे पुटेत् तद्वत् सप्तवारं प्रयत्नतः ।
एवं वासारसेणापि तण्डूलीयरसेन च ॥
प्रपुटेत् सप्तवारांश्च पूर्व्वप्रोक्तविधानतः ।
एतत् सिद्धं घनं सर्व्वयोगेषु विनियोजयेत् ॥

Twenty-ninth process.

Dhany abhram is to be rubbed with the juice of matsyakshi, made into a cake, dried, and then heated in a Gaja putam. It is thus to be rubbed with the juice of punarnava and heated by Gaja putam for six times. It is next to be rubbed with one sixteenth its weight of tankanam, made into a cake, and heated by fire being applied on the upperside of the samputam (containing the cake) which is to be in a pit made in the earth. This process of rubbing with

tankanam and heating is to be performed for seven times. It is next to be rubbed with each of the following for seven times each, and heated in the aforesaid way after its being rubbed each time :— juice of basa, and juice of tanduliyaka. Mica, thus incinerated, may be used in all sorts of diseases.

त्रिंशो विधिः । *

वज्राभ्रकं कुट्टयितुं सुखल्वे तप्तेन दुग्धेन च सेचनीयम् ।
तल्लौहपात्रे मृदुवह्निपक्कं घृतेन किञ्चिद्धि विलोलयित्वा ॥
शालीविमिश्रेण सुवस्त्रमध्ये बध्वा दृढं पोटलिमम्बुपात्रे ।
विघृष्य तोयान्तरसंस्थितं तद् धान्याभ्रकं शुद्धिमुपैति पश्चात् ॥
खल्वे सुरम्ये किल घर्षयित्वा जले चतुःषष्टिवनस्पतीनां
घर्मेऽथ संशोष्य दिनान्तकाले वनोत्पलानां पुटमाचरेच्च ।
एवंविधं मारितमभ्रकार्थं वनस्पतीनां क्रम एवमुक्तम् ॥
दुग्धं रवेर्वै वटवृक्षवज्रिकुमारिकानामनिलारितिक्ता ।
मुस्तागुडुचीविजयात्रिकंटवर्तकिनीपर्णिद्वयं च गुल्म ॥

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* धान्याभ्रकस्यापि विधानमत्र लिख्यते ।

सिद्धार्थको वै खरमञ्जरी च वटप्ररोहमजशोणितश्च ।
बिल्वाग्निमन्थाग्निकतिन्दुकाश्च हरीतकी पाटलिका
तथा हि ।
गोमूत्रधात्रीकलिकाभकुम्भीतालीसपत्ररसतालमूली ।
वृषाश्वगन्धामुनिराजरम्भाजलं तथा स्याद्र रससप्त-
पर्याः ॥
धत्तूरलोध्रद्रवदेवदारुवृन्दाकदूर्वाद्वयकाम्ममर्दाः ।
मरीचकं दाड़िमकाकमाची सशङ्खपुष्पीनतनागवल्ली ॥
पुनर्नवा मण्डुकपर्णितोयमिन्द्रावनी भार्गि च
देवदाली ।
कपित्थलिङ्गीकटुकिंशुकाश्च कोषातकीमूषकपर्णिका च ।
मीनाक्षिकाकारवितैलपर्णी कुम्भी तथार्द्रा च
शतावरी च ॥

Thirtieth process.

Vajra abhra is to be rubbed in a mortar with hot milk of cow, and heated by a mild fire in an iron cauldron, mixed with a little of clarified butter. This mica, with s'ali paddy, contained in a piece of cloth, made into a bundle, is to be rubbed in kanji with the result that minute particles of mica will come out through the cloth. These particles are called "Dhānya abhram", and they are pure. This mica is incinerated, if rubbed with each of the following drugs (not exceeding one in a day) during

day time, then dried in the sun, and heated by putam by means of cowdung cakes, at night. *

The names of the drugs and their sequence are as follows :--

milks of arka, banyan, bajri, and kanya ; juices of eranda roots, jaba-ticta, musta, guduchi, bhanga, gokshura, bartakini (kantakari), shalaparni, prisniparni, sweta sarshapa, apamarga, aerial roots of a banyan tree, vilba, agnimantha, chitraka, tinduka, haritaki, patali, amalaki, bibhitaki, kumbhi growing in water, talish patram, talamuli, basaka, aswagandha, kesharaja, kadali (plantain), saptaparni, dhattura, lodhra, devadaru, tulsi, durba, white durba, kasamarda, maricha, dadima, kakamachi, shankhapuspi, nata, tambula, punarnava, brahmi, indra baruni, bhargi, devadali, kapittha, shivalingi, katu rohini, kinshuka, koshataki, indura parni, meenakshi, karavi, tilaparni, kumbhi, ardraka, shatabari, goat's blood, and cow's urine.

अथ मृताभ्रस्य लक्षणम् ।

निश्चन्द्रं च सुसूक्ष्मं च लोचनांजनसन्निभम् ।
तदा मृतमितिप्रोक्तमभ्रकं चान्यथाऽमृतम् ॥

Characteristics of killed (incinerated) mica.

Mica is said to be killed or incinerated, if it is deprived of its glaze, and becomes as fine as collyrium ; otherwise, it is to be considered un-killed.

मृताभ्रस्यामृतीकरणम् ।

त्रिफलात्वक्कषायस्य पलान्यादाय षोड़श ।
गोघृतस्य पलान्यष्टौ मृताभ्रस्य पलान् दश ॥

* This includes the process of preparing dhanya abhram.

एकीकृत्य लौहपात्रे विपचेन् मृदुवह्निना ।
द्रवे जीर्णे समादाय सर्वरोगेषु योजयेत् ॥
अन्येषामपि धातूनाममृतीकरणं त्विदम् ॥

Impartation of the qualities of nectar upon killed mica.

Sixteen palams (64 tolas) of decoction of triphala, eight palams of cow's ghee, and ten palams of killed mica are to be mixed together, and heated in an iron cauldron by a mild fire, until the whole thing gets dried. This mica gains in efficacy and is to be used in all sorts of diseases. The same process is to be followed in the nectarisation of other metals also.

प्रकारान्तरम् ।

तुल्यं घृतं मृताभ्रेण लौहपात्रे विपाचयेत् ।
घृते जीर्णे तदभ्रं तु सर्वकार्येषु योजयेत् ॥

Another process of nectarisation of mica.

Incinerated mica, with an equal quantity of clarified butter, are to be heated in an iron cauldron, until the ghee is dried up. Efficacy of mica is enhanced by this process.

सविशेषं स्मर्त्तव्यं—अरुणस्य पुनरमृतीकरणे न गुणवृद्धिर्हान्यै तत् ।

N. B. These processes hold good in the cases of dead mica, not red in colour. The qualities of dead

mica, red in colour, do not improve by the process of nectarisation. On the other hand, red mica undergoes deterioration in efficacy by this process.

अभ्रमारणे पुटनस्य वैशिष्ट्यम् ।

दशादिस्तु शतान्तः स्यात् पुटो वै व्याधिनाशने ।
शतादिस्तु सहस्रान्तः पुटोदेयो रसायने ॥

Importance of putam in killing of mica.

Mica, incinerated by putams numbering 10 to 100, is to be used only for the purpose of curing of disease. Mica, incinerated by putams numbering 100 to 1000, may be used for the purposes of curing and preventing physical decay and senility.

प्रकारान्तरम् ।

अभ्रं त्वष्टादशपुटाद् वातनुद् द्विगुणेन तु ।
पित्तघ्नं त्रिगुणेनैव कफघ्नं मेहशोफनुत् ॥
अम्लपित्तामवातादिरोगे स्याद् गजकेशरी ।
अभ्रं शतपुटादूर्द्ध्वं बीजसंज्ञां ध्रुवं लभेत् ।
वीर्यौजःकान्तिमूलश्च तद् बीजं देहधारकम् ॥ *

Another view.

Mica, incinerated by putam for 18 times becomes pacifier of bayu. It becomes a pacifier of pittam, if

* शुद्धं स्वर्णञ्च रूप्यञ्च बीजमित्यभिधीयते ।
अभ्रं शतपुटादूर्द्ध्वं बीजसंज्ञं ध्रुवं भवेत् ॥
संक्षेपतः—रसेन ग्रासयोग्यो धातुर्बीजमित्यभिधीयते ।

incinerated by putam for 36 times. It pacifies phlegm, if incinerated by putam for 54 times. Mica, subjected to putam for more than one hundred times, is entitled to the name of beejam (seed). Such a mica increases semen, vitality, complexion, and strength of body. *

सहस्रपुटनपक्षे मर्द्दनस्य नैरर्थक्यम् ।

सहस्रपुटपक्षे तु भावनापुटनं भवेत् ।
मर्द्दनं तु न कर्त्तव्यं तत्रेति भिषजां मतम् ॥

Rubbing not necessary in putams for 1000 times.

If it is intended to subject mica to putam for a thousand times, it need not be rubbed with any of the prescribed juices. The mere act of subjecting the mica to bhavana with the prescribed juices will suffice in such a case.

गगनमारकवर्गः ।

तण्डुलीयकबृहतीनागवल्लीतगरपुनर्नवाहिलमोचिकामण्डूकपर्णीतिक्तकाखुपर्णिकामदनार्द्रकपलाशसूतमातृकादिभिर्मर्द्दनपुटनैरपि मारणीयमभ्रम् ।

Killers of mica,

Mica is also incinerated by being subjected to putam, after having been rubbed with the following:—tanduliyaka, brihati, nagaballi, tagarpadika, punarnava,

* Purified gold, and silver, as well as mica of the above descreption, are called "beejam" (seed), simply because they are fit for being swallowed by mercury.

hilamochika, mandukaparni, tictaka (kirata ticta), akhuparni, madana, ardraka, palasha, mercury, and amalaki.

अभ्रभस्मप्रयोगः ।

वेल्लव्योषसमन्वितं घृतयुतं वल्लोन्मितं सेवितम् ।
दिव्याभ्रं क्षयपाण्डुरुग्ग्रहणिकाशूलामकुष्ठामयम् ॥
ज्वरं श्वाससगदं प्रमेहमरुचिं कासामयं दुर्द्धरं ।
मन्दाग्निं जठरव्यथां विजयते योगैरशेषामयान् ॥

Use of incinerated mica.

Mica of an excellent quality cures pthisis, jaundice, chronic diarrhoea, colic, dysentry, leprosy, fever, asthma, gonorrhoea, aversion to food, loss of appetite, cough, and pain in the abdomen, if taken in doses of one balla at a time, with bidanga, trikatu, and ghee. It also cures all other diseases, if taken with the suitable anupanam (as detailed below).

अभ्रभस्मानुपानानि ।

अनुपानं विना व्योम जरामृत्युरुजापहम् ।
योजयेदनुपानैर्वा तत्तद्रोगहरं क्षणात् ॥
अभ्रकन्तु निशायुक्तं पिप्पलीमधुना सह ।
विंशतिश्च प्रमेहाणां नाशयेन् नात्र संशयः ॥
अभ्रकं हेमसंयुक्तं क्षयनुद् धातुवर्द्धकम् ।
रौप्यहेमाभ्रकश्चैव धातुवृद्धिकरं परम् ॥

अभ्रकञ्च हरीतक्या गुड़ेन सह योजितम् ।
एलाशर्करया युक्तं रक्तपित्तविनाशनम् ॥
त्रिकटुत्रिफलायुक्तं चातुर्जातेन सितया ।
मधुना सेवितं प्रातः क्षयार्शःपाण्डुनाशनम् ॥
गुडुचीसत्त्वखण्डाभ्यां मिश्रितं मेहनाशनम् ।
एलागोक्षुरभूधात्रीसितागव्येन मिश्रितम् ॥
प्रातः संसेवनान् नित्यं मूत्रकृच्छ्रविनाशनम् ।
पिप्पलीमधुसंयुक्तं भ्रमजीर्णज्वरापहम् ॥
मधुत्रिफलया युक्तं दृष्टिपुष्टिकरं मतम् ।
मूर्वासत्त्वयुतं व्योम व्रणानाञ्च विनाशनम् ॥
भल्लातकयुतं व्योम त्वर्शोदोषनिवारणम् ।
नागरपौष्करभार्गीगगनं मधुना सह ॥
अश्वगन्धायुतं खादेद्वातव्याधिप्रशान्तये ।
चातुर्जातं सिता चाभ्रं पित्तदोषनिवारणम् ॥
कट्फलपिप्पलीक्षौद्रयुतं व्योम कफापहम् ।
सर्व्वक्षारयुतञ्चाभ्रमग्निवृद्धिकरं परम् ॥
एलागोक्षुरभूधात्रीगोदुग्धसितया सह ।
मूत्राघातं मूत्रकृच्छ्रमश्मरीमपि नाशयेत् ॥
गोक्षीरक्षीरकन्दाभ्यां बलवृद्धिकरं परम् ।
विजयारससंयुक्तं शुक्रस्तम्भकरं मतम् ॥
लवङ्गमधुना युक्तं धातुवृद्धिं करोति हि ।

गोक्षीरशर्करायुक्तं पित्तरोगविनाशनम् ॥
शैलेयपिप्पलीचूर्णमाक्षिकैः सर्वमेहहृत् ।
अभयागुड़संयुक्तं वातरक्तं नियच्छति ॥
वरामधुघृतैः सार्द्धं शुक्रकृन्नेत्ररोगहृत् ।
त्रिसुगन्धिवराव्योषशर्करानागकेशरैः ।
माक्षिकेण निहन्त्याशु पांडुरोगं क्षयं ज्वरम् ॥

Special accompaniments of incinerated mica.

Mica, even if it is used without any accompaniment, can prevent senal decay, arrival of premature death, and diseases in general, but for the purpose of curing diseases, it may be used with suitable accompaniments.

It is to be used with haridra, pippali, and honey in twenty different kinds of prameha ; with incinerated gold in pthisis and for increase of the dhatus ; with incinerated gold and silver for increase of the dhatus ; with haritaki, molasses, ela, and sharkara (sugar) in ractapittam ; with trikatu, triphala, chaturjata, sharkara, and honey, taken in the morning in pthisis, piles, and jaundice ; with essence of guduchi and fine molasses (or sugar) in spermatorrhoea ; with ela, gokshura, bhudhatri, sharkara, and clarified cow's butter, in mutrakrichra ; with pippali and honey in giddiness and remittent fever ; with honey and triphala for improvement of eyesight ; with essence of murba in boils, carbuncles, etc., with bhallataka in piles ; with shunthi, root of puskara, bhargi, asva-

gandha, and honey, in batabyadhi (paralysis etc.); with chaturjatam and sugar in excess of pittam; with katphalam, pippali, and honey, in excess of phlegm; with all the ksharas for increase of the power of digesting food; with ela, gokshura, bhudhatri, cow's milk, and sugar, in mutraghata, mutrakrichchra, and ashmari; with cow's milk and bhumi kushmanda for increase of strength; with juice of vijaya for retention of semen; with labanga and honey for increase of the dhatus; with cow's milk and sugar in excess of pittam (animal heat); with shaileya, pippali, and honey, in all sorts of spermatorrhoea; with haritaki and molasses in bataractam; with triphala, honey and ghee in eye-diseases and for increase of semen; and with the trisugandhi, triphala, trikatu, sharkara, nagakeshara, and honey in jaundice, pthisis, and fever.

प्रकारान्तरम् ।

अथाभ्रककल्पः ।

निश्चन्द्रमभ्रकं सार्द्धं धात्रीव्योषविड़ंगकैः ।
निष्कैकं भक्षयेत् प्राज्ञो वर्षमेकं निरन्तरम् ॥
द्वितीये तु पुनर्वर्षे भक्षयेद् गुटिकाद्वयम् ।
एवं संवत्सरेणैव गुटिकैकां प्रवर्धयेत् ॥
त्रिवर्षस्य प्रयोगोऽयमभ्रकस्य प्रकीर्त्तितः ।
अनेन क्रमयोगेन व्योम्नः शतपलं नरः ॥
खादन् भवेन् न संदेहो वज्रकायो महाबलः ।
मासत्रयेण रक्ताख्यं क्षयकासं सुदारुणम् ॥

पञ्चकासांश्च हृद्गुल्मग्रहण्यर्शोभगन्दरम् ।
आमवातं तथा शोषं पांडुरोगं सुदारुणम् ॥
मृत्युकल्पं महाव्याधिं वातपित्तकफोद्भवम् ।
हन्त्यष्टादशकुष्ठानि नृणां पथ्याशिनां ध्रुवम् ॥

General directions for use of mica.

One should take every morning for a whole year, a pill, one nishka in weight, made of one racti of incinerated mica and an equal quantity of amalaki, trikatu, and vidanga. The dose is to be increased to two such pills, to be taken every morning during the second year. It is similarly to be raised to three pills, being taken every morning during the third year. A man taking one hundred palams of incinerated mica in the aforesaid way grows very strong with an adamantine constitution. One who takes mica in this way, and observes regulations for proper diet, becomes free, in three months, from all sorts of diseases, including pthisis, five different kinds of cough, heart disease, gulma, chronic diarrhoea, piles, fistula, rheumatism, consumption, jaundice, and eighteen different kinds of leprosy.

अभ्रकसेवने अपथ्यम् ।

क्षाराम्लं द्विदलञ्चैव कर्कटीकारवेल्लकम् ।
वृन्ताकञ्च करीरञ्च तैलं चाभ्रे विवर्जयेत् ॥

Dietary to be observed by one who takes mica.

One who takes mica should avoid taking the

following :—ksharas, amlas, pulses, karkati, karabella, brintaka (egg fruit), karira, and oils.

अपक्वाभ्रभक्षणे दोषाः ।

चन्द्रिकादियुतमभ्रकं हठाज्जीवितमपि झटिति प्रणाशयेत् । व्याघ्ररोमइव चोदरस्थितं वा तनौ वितनुते गदान् बहून् ॥

Evil effects of taking mica, not properly incinerated.

Mica, not properly incinerated, including that which has not been deprived of its glaze, may. all on a sudden, put an end to the life of one who takes it internally. Such mica also gives rise to all sorts of diseases, like the fur of a tiger, which finds its way into the belly or any other part of the body.

तच्छान्तिः ।

उमाफलं जले पिष्टा सेवते यो दिनत्रयम् ।
अशुद्धाभ्रकदोषेण विमुक्तः सुखमेधते ॥

Removal of the evil effects of impure mica.

One is freed from the evil effects of taking impure mica, if one takes for three days amalaki fruit, rubbed with water.

अथाभ्रस्य सत्वपातनम् ।

प्रथमोविधिः ।

चूर्णीकृतं गगनपत्रमथारणाले
धृत्वा दिनैकमवरस्थितशूरणाश्च ।

भाव्यं रसैस्तदनु मूलरसैः कदल्याः
पादांशटंकणयुतं शफरैः समेतम् ॥
पिण्डीकृतं तु बहुधा महिषीमलेन
संशोष्य कोष्ठगतमाशु धमेद् वटाग्नौ * ।
सत्त्वं पतत्यतिरसायनजारणार्थं
योग्यं भवेत् सकललोहगुणाधिकञ्च ॥
कणशो यद्भवेत् सत्त्वं मूषायां प्रणिधाय तत् ।
मित्रपञ्चकयुग् ध्मातमेकीभवति घोषवत् ॥

पञ्चमित्रं यथा ।

घृतमधुगुग्गुलगुञ्जाटंकणमितिपञ्चमित्रसंज्ञञ्च ।
मेलयति सप्तधातूनङ्गाराग्नौ तु धमनेन ॥ †

Extraction of essence of mica.

First process.

Mica, powdered and immersed for one day in aranala, and mixed with a little of shuranam, and with one fourth its quantity of tankanam and a few shaphari fishes, is to be subjected to bhavana with the juice of the tuber of banana plant. This is then to be rubbed with she-buffalo's stool, made into a lump, dried, and heated in a kostham by a strong fire made of banyan wood, resulting in the extraction of an essence. This essence is superior to all the metals

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* महाग्नौ इति पाठान्तरम् । † प्रथम खण्डे ३०५ पृष्ठे दुर्द्राव-लोहादिद्रावणवर्गो द्रष्टव्यः ।

in efficacy, and may be used for prevention of senility and diseases, after being duly incinerated. This essence, found in the form of small particles, is to be collected, kept in a crucible, and heated in conjunction with what is called, the "Mitra-panchakam" (or the five friends) with the result that the particles of the essence will smelt together into a mass, resembling a piece of bell-metal. This essence is to be purified and incinerated in the same way as iron.

The pancha-mitram are—(1) ghee, (2) honey, (3) guggulu, (4) gunja, and (5) tankanam. They bring about a combination of the seven different metals by being heated together by a fire made of char-coal. *

द्वितीयो विधिः ।

पादांशटंकणोपेतं मुसलीरसमर्दितम् ।
रुन्ध्यात् कोष्ठ्यां दृढं ध्मातं सत्वरूपं भवेद् घनम् ॥

Second process of extraction of essence of mica.

Purified mica, with one fourth its quantity of tankanam, is to be rubbed with the juice of mushali and heated steadily by means of a kosthi jantram. This will lead to the coming out of the essence.

तृतीयो विधिः ।

कासमर्दघनध्वनिवासानां च पुनर्भवः ।
मत्स्याद्याः काण्डवल्याश्च हंसपाद्याः रसैः पृथक् ॥

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* See page 305, vol I, for articles effecting an easy smelting of hard metals.

पिष्ट्वा व्योम प्रयत्नेन शोषयेद्घर्मयोगतः।
ततो गोधूमचूर्णञ्च चन्द्रमत्स्यांश्च टंकणम्॥
प्रत्येकमष्टमांशेन दत्त्वा दत्त्वा विमर्दयेत्।
मर्दने मर्दने सम्यक् शोषयेद् रविरश्मिभिः॥
पञ्चाजं पञ्चगव्यं वा पञ्चमाहिषमेव च।
क्षिप्त्वा गोलान् प्रकुर्व्वीत किञ्चित् तिन्दुक-
तोऽधिकान्॥

पयो दधि घृतं मूत्रं विट् च पंचाजमुच्यते।
अधःपातनकोष्ठ्यां हि ध्मात्वा सत्त्वं निपातयेत्॥
कोष्ठ्यां किट्टं समाहृत्य विचूर्ण्यात्रकरान् हरेत्।
तत् किट्टं स्वल्पटंकेन गोमयेन विमर्द्य च॥
गोलान् विधाय संशोष्य घर्मे भूयोऽपि पूर्ववत्।
भूयः किट्टं समाहृत्य पूर्ववत् सत्त्वमाहरेत्॥

Third process.

Mica is to be rubbed separately with each of the following, and dried in the sun, after it is rubbed every time :—kasamarda, musta, basaka, punarnaba, brahmi or hilamochika, karabella leaves, and hansapadi. It is then to be rubbed separately with one eighth its quantity of each of the following, and similarly dried in the sun :—powdered wheat, small fish, and tankanam. It is next to be rubbed with the milk, curd, ghee, urine, and stool of a goat, or a cow, or a buffalo, and made into a small ball, a little bigger

than a tinduka fruit. The ball is then to be subjected to heat in a patala kosthi, which lets the essence drop downwards and deposit itself down below. * The remains of the ball are to be freed from dirt, rubbed with a little of tankanam and cow-dung, and again made into a ball which is to be dried and heated in the afore-said manner, for the extraction of more essence. The remains of the second ball, if there are any, are again to be treated in the same manner for the extraction of more essence.

चतुर्थो विधिः।

गुड़ः पुरस्तथा लाक्षा पिण्याकं टंकणं तथा।
ऊर्णासर्जरसश्चैव क्षुद्रमीनसमन्वितम्॥
एतत् सर्वं तु संचूर्ण्य छागदुग्धेन पिण्डकान्।
कृत्वा ध्मातं खरांगारैः सत्त्वं मुञ्चति निश्चितम्।
पाषाणमृत्तिकाद्यं वं व्योमसत्त्वस्य का कथा॥

Fourth process.

Essence of mica is extracted, if it is rubbed with the powder of each of the following, and a sufficient quantity of milk, made into a ball, and then heated in a kosthi Jantram :—molasses, guggulu, laksha, sesamus cake, tankanam, wool, rala, and small fishes. By this process, it is possible to obtain essences even of such hard things as stone, earth, etc., not to speak of mica.

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* See vol I, page 264.

पञ्चमो विधिः ।

धान्याभ्रकं गृहीत्वाथ टंकणं च गुड़ं पुनः ।
टंकणं रक्तकाचं च माहिषपञ्चकं तथा ॥
लाक्षां सजरसं दत्वा कदलीकंदजं द्रवम् ।
क्षुद्रांश्च मत्स्यकान् दत्वा शूरणस्य रसं तथा ॥
एरण्डपत्रस्वरसं हिंगु चैव सुशोधितम् ।
सौभाग्यं च ततो दत्वा वनशूरणजं रसम् ॥
विमर्द्य गुटिकां कृत्वा मधुना सह शोषयेत् ।
ध्मायते सा ततो गाढ़ं लोहकिट्टसमं भवेत् ॥
संचूर्ण्य तां समादाय सत्वमभ्रस्य कोमलम् ।
अतिसूक्ष्मं प्रयत्नेन सर्वकर्म प्रसाधयेत् ॥

Fifth process.

Dhanya abhram is to be rubbed with the following in order of their occurrence :—tankanam, molasses, tankanam, red glass, mahisha-panchakam, laksha, exudation of sarja tree, juice of the tuber of banana, small fish, juice of shuranam, juice of castor leaves, hingu duly purified (by being fried with ghee), tankanam, juice of wild shuranam, and honey. The whole thing is to be made into a ball, and dried. This is then to be subjected to heat (by means of a kosthica Jantram) which turns it into some thing resembling oxidised iron. This lump is then to be powdered and essence of mica, very fine and soft, is to be collected from these powders.

अथाभ्रसत्वस्य शोधनम् ।

प्रथमो विधिः ।

अयोवच्छोधनमेतस्य ।

First process of purification of essence of mica.

The essence of mica is to be purified and incinerated in the same way as iron (see later).

द्वितीयो विधिः ।

अथ सत्वकणास्तांस्तु काथयित्वाम्लकाञ्जिकैः ।
शोधनीयगणोपेता मूषामध्ये निरुध्य च ॥
सम्यग् द्रुतं समाहृत्य द्विवारं प्रधमेत् ततः ।
इति शुद्धं भवेत् सत्वं योग्यं रसरसायने ॥ *

Second process of purification.

The particles of essence of mica are to be kept confined with the shodhaniya gana and sour kanji, in a crucible, and heated until the smelting of the particles. The essence is then to be heated again twice. Thus purified, the essence becomes fit, by incineration, for being swallowed by mercury and for use as a rasayanam (*i. e.*, a medicine which prevents and cures physical decay and senility). †

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* "काथयित्वाम्लकाञ्जिकैः" इत्येतस्य स्थले "मुस्ताकाथाम्लकाञ्जिकैः" इत्यपि पाठो दृश्यते । तथैवं "सम्यग् द्रुतं" इत्येतस्य स्थले "सम्यक् पक्व" इत्यपि पाठः कल्प्यते । शोधनीयगणस्य संज्ञा प्रथमखण्डे ३०६ पृष्ठे द्रष्टव्या ।

† For meaning of shodhaniya gana, see vol, I, page 306.

अभ्रसत्वमारणम् ।

प्रथमो विधिः ।

अयोवन्मारणमेतस्य ।

Incineration of essence of mica.

First process.

Mica is to be incinerated in the same way as iron.

द्वितीयो विधिः ।

सूततुल्यं व्योमसत्वं तयोस्तुल्यं च गन्धकम् ।
कुमारिकारसैर्मर्द्य यन्त्रे सैकतके पचेत् ॥
दिनद्वयान्ते संग्राह्यं भक्षयेन् माषमात्रकम् ।
क्षयं शोषं तथा कासं प्रमेहं चापि दुष्करम् ।
पाण्डुरोगं च कार्श्यं च हन्याच्छीघ्रं न संशयः ॥

Second process.

Essence of mica, mercury, and sulphur, each equal in quantity, are to be rubbed with the juice of kanya, and heated in a Baluka-jantram for two days, (confined in samputam consisting of two earthen basins *). The contents of the samputam or "Malla Musha" are then to be taken out and taken in doses of one masha (*i, e.*, six gunjas) a day. Thus taken, it cures in a short time, pthisis, consumption, cough, gonorrhoea of an obstinate type, jaundice, and thinness.

* See page 260, vol I, under "Another kind of Baluka Jantram," and page 291, Ibid, under "Malla Musha."

तृतीयो विधिः।

पट्टचूर्णं विधायाथ गोघृतेन परिप्लुतम्।
भर्जयेदभ्रसत्वकं सप्तवारैस्तु खर्परे॥
अग्निवर्णं भवेद् यावद् वारं वारं विचूर्णयेत्।
तृणं क्षिप्त्वा दहेद् यावद् तावद् वा भर्जनं चरेत्॥
ततः सगन्धकं पिष्ट्वा वटमूलकषायतः।
पुटेद् विंशतिवारैश्च वाराहेन पुटेन हि॥
पुनर्विंशतिवारैश्च त्रिफलोत्थकषायतः।
त्रिफलामुण्डिकाभृङ्गपत्रपथ्याग्नमूलकैः॥
भावयित्वा प्रयोक्तव्यं सर्व्वरोगेषु मात्रया।
सत्वाभ्रात् किञ्चिदपरं निर्विकारं गुणाधिकम्॥
एवं चेच्छतवारेण पुटपाकेन साधितम्।
गुणवज्जायतेऽत्यर्थं परं पाचनदीपनम्॥
क्षुधां करोति चात्यर्थं गुञ्जार्द्धं मितसेवया।
तत्तद् रोगहरैर्योगैः सर्वरोगहरं परम्॥

Third process.

Essence of mica is to be powdered very fine and sifted through a piece of fine cloth. It is then to be heated in a piece of earthen vessel, until it gets red hot, or until a straw thrown upon it is reduced to ashes. The powder is then to be rubbed with sulphur

and the juice of the aerial roots of a banyan tree, and subjected to baraha putam for twenty times. It is then to be rubbed with decoction of triphala and subjected to putam for twenty times more. It is then to be rubbed separately with each of the following, and subjected to putam after every act of rubbing :—triphala, mundiri, bhringaraja, haritaki, bibhitaki, and mula. The essence of mica, thus incinerated, gains in efficacy. If subjected to putam for a hundred times, it proves more efficacious, and acquires the power of digesting food and increasing appetite. It cures all sorts of diseases, if taken in doses of half a racti, with suitable anupanam.

चतुर्थो विधिः ।

सत्वस्य गोलकं ध्मातं शस्यसंयुक्तकाञ्जिके ।
निर्वाप्य तत्क्षणेनैव कुट्टयेल्लोहपारया ॥
संप्रताप्य घनस्थूलकणान् क्षिप्त्वाथ काञ्जिके ।
तत्क्षणेन समाहृत्य कुट्टयित्वा रजश्चरेत् ॥
गोघृतेन च तच्चूर्णं भर्जयेत् पूर्ववत् त्रिधा ।
धात्रीफलरसैस्तद्वद्‌ धात्रीपत्ररसेन वा ॥
भर्जने भर्जने कार्य्यं शिलापट्टेन पेषणम् ।
ततः पुनर्नवावासारसैः काञ्जिकमिश्रितैः ॥
प्रपुटेद्‌ दशवारैश्च दशवारैश्च गन्धकैः ।
अनेन मारितं सत्वं व्योम्नः सर्वगुणोत्तरम् ॥
यथेष्टं विनियोक्तव्यं जारणे च रसायने ।

Fourth process.

Lump of essence of mica is to be heated and cooled by being thrown into unfiltered kanji and broken into pieces immediately by means of an iron bar. The pieces which cannot be finely powdered by hammering are to be again heated, thrown into kanji, and hammered again, as before. The powders, thus obtained, are to be mixed with cow's ghee, and heated red hot for three times, being rubbed every time with the juice of the fruits or leaves of amalaki after the powder gets red hot. It is then to be subjected to putam for ten times, being rubbed each time with the juice of punarnava, mixed with kanji. It is next to be subjected to putam for ten times more, being rubbed each time with an equal quantity of sulphur. Essence of mica, thus incinerated, becomes the most efficacious, and may be used in the exhaustion of mica, and for purpose of prevention and cure of diseases and senility.

अभ्रसत्त्वभस्मसेवनविधिः ।

चूर्णमभ्रकसत्त्वस्य कान्तलौहस्य वा ततः ।
तीक्ष्णस्य वा प्रयत्नेन त्रिफलाक्वाथभावितम् ॥
यावदञ्जनसंकाशं वस्त्रच्छन्नं विशोष्य च ।
भृङ्गामलकसारेण हरिद्राया रसेन च ॥
क्रौञ्चाजघृतगोमूत्रमधुसंमिश्रितं ततः ।
लौहसंपुटमध्यस्थं मासं धान्ये प्रतिष्ठितम् ॥
घृतेन मधुना लिह्यात् नेत्रीकरणमुत्तमम् ।
एवं वर्षप्रयोगेन सहस्रायुर्भवेन् नरः ॥

How incinerated essence of mica is to be used.

The general rule with regard to the use of incinerated essence of mica, kanta iron, and tikshna iron is that each of these is to be subjected to bhavana with decoction of triphala for as many times as are necessary for making the incinerated metal assume a black appearance. It is then to be dried, and sifted through a fine piece of cloth, mixed with the juices of bhringaraja, amalaki, haridra, honey, goats' ghee, cow's urine, and kept for a month inside a heap of paddy, confined within an iron samputam. The mica, thus treated, is a very good medicine. It increases longevity to a great extent, if taken for one year, with ghee and honey.

अभ्रसत्त्वस्य मृदूकरणम् ।

मधुतैलवसाज्येषु द्रावितं परिवापितम् ।
मृदु स्याद्द दशवारेण सत्त्वं लौहादिकं खरम् ॥

Softening of essence of mica.

All sorts of hard essences, including those of metals, are softened, if smelted with honey, oil, fat, and ghee, and cooled—all these being done for ten times.

अभ्रद्रुतिः ।

प्रथमो विधिः ।

अगस्त्यपत्रनिर्यासैः धान्याभ्रं मर्दितं तथा ।
शूरणोदरमध्ये तु निक्षिप्तं लेपितं मृदा ॥

गोष्ठभूमिं खनित्वा तु हस्तमात्रमधः क्षिपेत्।
मासान्तयुद्धृतं तत्तु जायते पारदोपमम्॥

Liquefaction of mica

First process.

Dhhanyabhram is to be rubbed with the juice of agastya leaves and kept confined within a tuber of shuranam. It is then to be placed inside a pit, 1½ foot deep, cut in a land where cows are kept. This mica will be found to resemble mercury, if taken out after a month.

शुद्धकृष्णाभ्रपत्राणि पीलुतैलेन लेपयेत्।
घर्मे शोष्याणि सप्ताहं लिप्त्वा लिप्त्वा पुनः पुनः॥
मर्दितं चाम्लवर्गेण तद्वच्छोष्याणि चाथ वै।
स्नुह्यर्कार्जुनवह्नीनां कटुतुम्ब्याः समाहरेत्॥
क्षारं क्षारत्रयं चैतदष्टकं चूर्णितं समम्।
वज्रकन्दक्षीरकन्दबृहती कण्टकारिका॥
वनवृन्ताकमेतेषां द्रवैर्भाव्यं दिनत्रयम्।
अनेन क्षारकल्केन पूर्वपत्राणि लेपयेत्॥
आतपे कांस्यपात्रे च धृत्वा धृत्वा पुनः पुनः।
एवं दिनत्रयं कुर्य्याद् द्रुतिर्भवति निर्मला॥

Second process.

Purified leaves of black mica are to be soaked with pilu oil, and dried in the sun, the process being

repeated over and over again, for one weak. They are then to be rubbed with the amla barga (see page 301, Vol I) and similarly to be dried. Next are to be procured equal quantities of ksharas of the following, powdered well ;—snuhi, arka, arjuna, chitraka, katutumbi, jabakshara, swarjikshara, and tankanam. The mica leaves are then to be rubbed with these ksharas and subjected to bhavana for three days with the decoction of the following :—bajra-kanda, kshira-kanda, brihati, kantakari, and bana brintaka. The mica leaves are then to be coated with a concentrated solution of the ksharas mentioned above, kept on a bell metal pot and dried, the process being repeated, as many times as necessary, for three days, resulting in the liquefaction of mica.

तृतीयो विधिः ।

कर्कोटीफलचूर्णं तु मित्रपञ्चकसंयुतम् ।
एतत्तुल्यं च धान्याभ्रमम्लैर्मर्द्यं दिनावधि ।
अथ मूषागतं ध्मातं तद्द्रुतिर्भवति ध्रुवम् ॥

Third process.

Dhanya abhram with an equal quantity of powdered karkoti fruit and mitra pachchakam, (or panchamritam—see page 44) combined, is to be rubbed with a sour juice for one day, and heated in a crucible resulting in a liquefaction.

चतुर्थो विधिः ।

धान्याभ्रकं च गोमांसमभ्रपादं च सैन्धवम् ।
स्नुह्यर्कपयसा द्रावैर्मुनिजैर्मर्दयेत् त्र्यहम् ॥

तद्गोलं कदलीकन्दे क्षिप्त्वा बाह्ये मृदालिपेत् ।
करीषाग्नौ त्र्यहं पाच्यं द्रुतिर्भवति निर्मला ॥

Fourth process.

Dhanya abhram with one fourth its quantity of cow's flesh and saindhava are to be rubbed for three days with the milks of snuhi and arka, and with the juice of basaka, and made into a ball which is to be put inside the tuber of a banana plant, coated all over with mud. The whole thing is to be heated, for three days, by means of a fire made of cow dung cakes, resulting in a clear liquefaction of the mica.

पञ्चमो विधिः ।

अभ्रकं नरतैलेन भावितं च सुचूर्णितम् ।
गोपेन्द्रलेपिते मूषे धमनाद्द्रुतिमाप्नुयात् ॥

Fifth process.

Mica is to be powdered very fine and subjected to bhavana with human oil (fat). * It is then to be subjected to heat by being put into a crucible, previously coated all over its inner surface, with a worm called indra gopa or gopendra. The result will be a liquefaction of the mica.

षष्ठो विधिः ।

श्वेताभ्रकं हि संचूर्ण्य गोमूत्रेण तु भावयेत् ।
कदलीजलसंयुक्तं भावयेच्च विचक्षणः ॥

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* See glossary.

धमेत् तदन्धमूषायां त्रिवारं च प्रयत्नतः ।
द्रुतं भवति तद्व वज्रं नात्र विस्मयकारणम् ॥

Sixth process.

Powdered white mica is to be subjected to bhavana with cow's urine and then with the juice of banana. It is then to be confined in a blind crucible and subjected to heat over and over again until it turns into a liquid.

अथ अभ्रसत्त्वाद् द्रुतिसाधनं लिख्यते ।

सप्तमो विधिः ।

स्वरसेन वज्रवल्ल्याः पिष्टं सौवर्च्चलान्वितम् ।
पुटितं बहुशो व्योम जायते रसरूपधृक् ॥

Seventh process.

Essence of Dhanya abhram, rubbed with the juice of bajra balli and saubarchala salt, and subjected to putam for several times, assumes the appearance of mercury,

अष्टमो विधिः ।

निजरसबहुपरिभावितसुरदालीचूर्णवापेन ।
द्रवति पुनः संस्थानं भजते कनकत्वं कालेऽपि ॥

Eighth process.

Powdered devadali, subjected to bhavana for many times, with its own juice, if thrown upon essence of

mica, causes the liquefaction of the latter. This liquid comes to be condensed of itself, and even changes itself into gold, in course of time.

नवमो विधिः ।

निजरसशतपरिभावितकञ्चुकीकन्दोत्थपरिवापात् ।
द्रुतमास्तेऽभ्रकसत्त्वं तथैव सर्व्वलोहानि ॥

Ninth process.

(The process of liquefying all the metals).

Essence of mica as well as any metal undergoes liquefaction, if powdered tuber of kanchuki, already subjected to bhavana with its own juice, is thrown upon it.

अथानेकद्रुतिमेलापन-विधिः ।

कृष्णागुरुनाभिशिलारसोनसितरामठैरिमा द्रुतयः ।
सोष्णा मिलन्ति मर्द्दिता कुसुमपलाशबीजरसैः ॥

How to amalgamate more than one metal in a state of cold liquid.

More than one such liquids amalgamate, if rubbed with the juice of palasha seeds, mixed with black aguru, musk, manas-shila, onion, and white hingu, and heated.

अभ्रकवेधक्रिया ।

प्रथमो विधिः ।

श्वेताभ्रं श्वेतकाचं च विषसैन्धवटंकणम् ।
स्नुहीक्षीरैर्दिनं मद्यं तेन वंगस्य पत्रकम् ॥

लेप्यं पादांशकल्केन चान्धमूषागतं धमेत् ।
पुत्रञ्जीवस्य तैले तद् ढालयेद् द्रुतवङ्गकम् ॥
पूर्व्वोक्तलेपमेकं च सप्तवारेण दापयेत् ।
ध्मायते सप्तवारैश्च पूर्व्वप्रोक्तविधानतः ।
पुत्रञ्जीवोत्थतैलेषु ढालयेत् सप्तवारकम् ।
तद् वंगं जायते तारं शङ्खकुन्देन्दुसंन्निभम् ॥

Transformation of tin into silver by means of mica.

White mica, white glass, aconite, saindhava, and tankanam are to be rubbed with the milk of snuhi for one day and made into a paste with which are to be coated the surfaces of a tin foil four times in weight of the paste. The tin foil is next to be subjected to heat in a blind crucible. When smelted, it will have to be poured into putranjiba oil. The process of coating with paste, heating, and then immersion into putranjiba oil is to be performed for seven times each, respectively, with the result that the tin will turn into a very fine white silver.

द्वितीयो बिधिः ।

पीताभ्रं गन्धको सूतो रक्तपुष्पं चतुर्थकम् ।
वज्राक्षीरेण संयुक्तं वंगं तारायते क्षणात् ॥

Second process.

White mica, sulphur, mercury, and a red flower—these four, rubbed with the milk of sehundu, turn tin into silver.

अथ माक्षिकम् ।

माक्षिकं धातुमाक्षिकं तप्ततापीसमुद्भवम् ।
गरुड़ो माक्षिकः पक्षी तापीजो मधुमाक्षिकम् ।
ताप्यं माक्षिकधातुश्च मधुधातुश्च स स्मृतः ॥
भङ्गे सुवर्णसङ्काशो मनाक् कृष्णाच्छविर्वहिः ।
बृहद्वर्ण इति ख्यातो माक्षिकः श्रेष्ठ उच्यते ॥
माक्षिको द्विविधो हेममाक्षिकस्तारमाक्षिकः । *
तत्राद्यं माक्षिकं कान्यकुब्जोत्थं स्वर्णसन्निभम् ॥
तपतीतीरसम्भूतं पञ्चवर्णसुवर्णवत् ।
पाषाणबहुलः प्रोक्तस्ताराख्योऽल्पगुणात्मकः ॥
सुवर्णशैलसम्भवं माक्षिकद्वितयं खलु ।
ताप्यां किरातचीनेषु कान्यकुब्जे च जायते ॥
ताप्यां सूर्य्यांशुसन्तप्तं माधवे मासि दृश्यते ।
मधुरः काञ्चनाभासः साम्लो रजतसन्निभः ॥
किञ्चित् कषाय उभयः तिक्तं पाके कटुर्लघुः ।
तत्सेवनाज्जराव्याधिर्विषै र्न परिभूयते ॥

Makshikam (pyrites).

The makshika, which, on being broken to pieces, presents a surface bright with golden tints, with a rather black interior is superior to the common variety. This variety of makshika is called, "Brihad barna",

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* कांस्यमाक्षिकमिति तारमाक्षिकस्य नामान्तरम् ।

or having a superior colour (swarna-makshika). Makshika is of two kinds, viz, swarna makshika and roupya makshika. The first has got golden tints and is to be found in kanya-kubja ; the other variety, called roupya makshika, which resembles gold $\frac{5}{16}$ parts fine and contains much of stone is to be found in the banks of river Tapati. It is of inferior quality. Both these varieties of pyrites grow in rocks abounding in golden ores. They are generally found in the river Tapi, kirata, china, and kanauj. These are generally visible in spring in the hot bed of the river Tapi. The makshika which has golden tints is sweet in taste, and that which resembles silver in appearance is sour in taste. Both of them are a little astringent in taste, have a cooling effect on the system, turn pungent after their being digested in the stomach, and are light. One who takes makshikam regularly is never overwhelmed with senility, disease, and poison.

प्रकारान्तरम् ।

माक्षिकं त्रिविधं प्रोक्तं पीतं शुक्लञ्च लोहितम् ।
चतुर्धाकारवैशिष्ट्याद् विज्ञेयं क्षेत्रभेदतः ॥
कदम्बगोलकाकारं शुक्तिकापुटसन्निभम् ।
तथांगुरीयकाकारं भस्मकतुरिकासमम् ॥
पीतं सुवर्णमाक्षिकं रक्ताभं विमलाख्यकम् । *
सुवर्णमाक्षिकं तेषु प्रवरं सप्तवर्णकम् ॥ †

* अग्रे विमलस्य स्वतन्त्रः प्रसङ्गो द्रष्टव्यः ।

† सप्तवर्णकम्—सप्तवर्णसुवर्णाभम् ।

विमलस्य गुणाः किञ्चिन् न्यूनाः कनकमाक्षिकात् ।
तद्वद् रजतवर्णं च हीनं शुक्तिपुटादिकम् ।
गुणतश्च सुवर्णेन प्रवरं परिकीर्त्तितम् ॥

Detailed classification of pyrites.

Makshikas are of three different kinds, viz, yellow, white, and red. They are also sub-divided into four classes according to their shape, due to the difference in the location of the soils in which they are to be found, viz, (1) round like a kadamba flower, (2) having the shape of an oyster shell (3) having the shape of a finger ring, and (4) resembling burnt tubari in colour.

Of these varieties, the one which is yellowish is called swarna makshika, and that which is reddish is called bimala. * Swarna makshika is the best of all these varieties. It has the colour of gold $\frac{7}{16}$ parts fine. Bimala is a bit inferior in quality to swarna makshika. Similarly, the makshika which has the shape of an oyster shell and some other varieties having the colour of silver are the worst of all. As regards merit of these different varieties, it depends upon the quantity of gold contained in each.

किञ्चित् सुवर्णसाहित्यात् स्वर्णमाक्षिकमीरितम् ।
उपधातुः सुवर्णस्य किञ्चित् स्वर्णगुणान्वितम् ॥

* Bimala is separately treated later on.

द्रव्यान्तरस्य संसर्गाद् धत्ते गुणान्तराण्यपि ।
स्वर्णाभं स्वर्णमाक्षिकं निष्कोणं गुरुतायुतम् ॥
कृष्णतां विकिरेत् तत्तु करे घृष्टं न संशयः ।
स्वर्णवर्णं गुरु स्निग्धमीषन् नीलच्छविच्छटम् ॥
कषे कनकवद् दृष्टं तद्धितं हेममाक्षिकम् ।
तारमाक्षिकमन्यत्तु भवेत् तद् रजतोपमम् ॥
किञ्चिद् रजतसाहित्यात् तारमाक्षिकमीरितम् ।
अनुकल्पतया तस्य ततो हीनगुणः स्मृतः ।
न केवलं गुणाः सन्ति रौप्यस्य तारमाक्षिके ॥
द्रव्यान्तरस्य संसर्गाद् धत्ते गुणान्तरं हि तत् ॥

Swarna-makshika is so called because it contains a little of gold. It is a semi-metal containing a little of gold, and, therefore, has to a certain extent, the qualities possessed by gold ; but, on account of its containing other ingredients, it has got other qualities also. Swarna-makshika has the appearance of gold, has no angles, is heavy, leaves a black impression when rubbed on the palm. The swarna-makshika which is superior in quality should have the following characteristics ; gold like complexion, heaviness, softness, a little blue tint, and causing a gold-like impression, when rubbed on a piece of touch stone.

The second variety is roupya makshika. It has the colour of silver. It is so called because it contains a little of silver. It is therefore inferior to swarna-makshika in quality. Not only does it possess some

of the qualities of silver, but it has got some other qualities also on account of its containing some other ingredients.

माक्षिकस्य गुणाः।

माक्षीकधातुः सकलामयघ्नः
प्राणो रसेन्द्रस्य परं हि वृष्यः।
दुर्मेललोहद्वयमेलनश्च
गुणोत्तरः सर्वरसायनाग्र्यः॥
चक्षुष्यं बस्तिरुक्कुष्ठपाण्डुमेहविषोदरान्।
अर्शः शोथं क्षयं कण्डूं त्रिदोषं माक्षिको जयेत्॥

Merits of makshika.

Makshika cures all sorts of diseases. It is the soul of mercury, so to speak, is nutritive, and can help the combination of two metals, otherwise difficult to combine. It is one of the best of all medicines, competent to cure all sorts of diseases and to prevent senal decay. Especially, it improves eye-sight, and cures diseases of the abdomen, leprosy, jaundice, venereal diseases, poison, udara-roga, piles, dropsy, pthisis, itches, and an abnormal excess of the three doshas.

अशोधितमाक्षिकसेवने दोषः।

मन्दानलत्वं बलहानिमुग्रां
विष्टम्भितां नेत्रगदांश्च कुष्ठान्।

करोति मालां मरणं व्रणाश्च
शुद्ध्यादिहीनं खलु माक्षिकञ्च ॥

Evil effects of taking makshika, not properly purified.

Makshika, not properly purified and incinerated, gives rise to loss of appetite, loss of vigour, swelling of the belly with gas attended with constipation, eye diseases, leprosy, scrofula, carbuncle, and even death.

अथ माक्षिकस्य शोधनम् ।

प्रथमो विधिः ।

माक्षिकं नरमूत्रेण क्राथयेत् कोद्रवद्रवैः ।
वेतसेनाम्लवर्गेण टंकणेन कटुत्रिकैः ॥
दोलायन्त्रे दिनं पाच्यं शूरणस्यैव मध्यगम् ।
दिनं रम्भाद्रवैः पचेत् ततस्तत् पेषयेद् घृतैः ।
एरण्डतैलसंयुक्तं पुटेत् पश्चाद् विशुद्धये ॥

Purification of Makshika.

Makshika is to be boiled with human urine, and then to be confined within the tuber of a shuranam, and again boiled for one day in a Dola-Jantram with the juice of kodrava, juice of amla betasa, the amla-varga, tankanam, and trikatu. It is then to be boiled for one day with the juice of banana plant, and then subjected to putam, after having been rubbed with ghee and castor oil.

द्वितीयो विधिः।

माक्षिकस्य त्रयो भागा भागैकं सैन्धवस्य च।
मातुलुङ्गद्रवैर्वाथ जम्बीरोत्थद्रवैः पचेत्॥
लौहपात्रे पचेत् तावल्लौहदर्व्या च चालयेत्।
ताम्रवर्णमयो यावत् तावच्छुध्यति माक्षिकम्॥

Second process.

Three parts of makshika and one part of rock salt are to be boiled in an iron pot with the juice of matulunga or jambira (lime fruit), and turned all the while with an iron ladle, until the makshika gets red hot and assumes the colour of copper.

तृतीयो विधिः।

अगस्तिपुष्पनिर्यासैः शिग्रुमूलं विघर्षयेत्।
द्रवैः पाषाणभेद्याश्च पश्चादेभिश्च माक्षिकम्॥
तद्वटीं चान्धमूषायां विंशतिरुपलैः पचेत्।
पुनः पिष्ट्वा पुनः पाच्यं षड्भिरेवं विशुध्यति॥

Third process.

The root of shigru is first of all to be rubbed with the juice of agasti flower, and then with the juice of pashana bhedi. The whole thing is then to be rubbed with makshika and made into a ball, which (duly dried) is to be subjected to heat in a blind crucible by means of 20 pieces of cowdung cakes. It is then to be rubbed as before, and heated in the

same way. The process is thus to be performed for six times, leading to the purification of makshika.

चतुर्थो विधिः ।

मेघनादशिलाभेदं पिष्टा तत्पिण्डकोदरे ।
माक्षिकं चूर्णितं धृत्वा वस्त्रे बद्ध्वा तु गोलकम् ॥
कुलत्थक्काथमध्यस्थं दोलायां च दिनं पचेत् ।
अनेन शोधितं ताप्यं मारणाय प्रयुज्यते ॥

Fourth process.

Makshika, reduced to powder, is to be put inside a ball made of meghanada and pashana bhedi, rubbed together with water. The ball is then wrapped up in a piece of cloth and boiled, for one day, by means of a Dola Jantram, filled with a decoction of kulattha grams. Thus purified, the makshika becomes fit for being incinerated.

पञ्चमो विधिः ।

माक्षिकस्य विचूर्णन्तु वस्त्रे बद्ध्वा विपाचयेत् ।
कालमारिषशालिञ्चकाथे दोलाविधानतः ।
तदधः पतितं शस्तमेवं शुध्यति माक्षिकम् ॥

Fifth process.

Makshika, finely powdered, is to be wrapped up in a piece of cloth, and boiled by means of a Dola Jantram, filled with the juices of tanduliyaka and shalincha. The substance deposited at the bottom of the Dola Jantram is to be considered purified.

षष्ठो विधिः।

कांजिके निम्बुगोमूत्रे जयन्त्याः स्वरसे भिषक्।
सुवर्णमाक्षिकं चैव तारमाक्षिकमेव च॥
बद्ध्वा गाढ़ाम्बरे सम्यग् दोलायन्त्रे त्र्यहं पचेत्।
शुध्यते नात्र संदेहः सर्वयोगेषु योजयेत्॥

Sixth process.

Makshika, duly wrapped up in a piece of thick cloth, is to be boiled for three days, in a Dola Jantram to be filled with kanjika, lime juice mixed with cow's urine, and juice of jayanti leaves, respectively.

सप्तमो विधिः।

तैलेनैरण्डजेनादौ याममात्रं विमर्दयेत्।
माक्षिकं शरावे धृत्वा पचेत् त्रिंशद्वनोत्पलैः॥

Seventh process.

Makshika is to be rubbed for three hours with castor oil, and then heated in a basin by a fire made of thirty pieces of cowdung balls found dried in a pasturage.

अष्टमो नवमस्तथा दशमो विधयः।

एरण्डतैललुङ्गाम्बुसिद्धं शुध्यति माक्षिकम्।
सिद्धं वा कदलीकन्दतोयेन घटिकाद्वयम्।
तप्तं क्षिप्तं वराक्वाथे शुद्धिमायाति माक्षिकम्॥

Eighth, ninth and tenth processes.

Makshika is purified, if boiled with castor oil mixed with the juice of matulunga fruit ; or if boiled for two hours with banana plant juice ; or if heated and soaked with decoction of triphala.

एकादशो विधिः ।

अग्रे विमलस्य प्रथम शोधनविधि द्रष्टव्यः ।

Eleventh process.

See first process of purification of bimala.

द्वादशो विधिः ।

अगस्तिपत्रनिर्य्यासः सिद्धमूलं सुपेषितम् । *
तन्मध्ये पुटितं शुद्धं निम्बुजाम्लेन पाचितम् ॥

Twelfth process.

Makshika is purified, if it is boiled, first of all, with the juice of nimbu (lime fruit), and then put inside a paste made of the root of shobhanjana, rubbed with the juice of basaka flower, and subjected to putam.

त्रयोदशो विधिः ।

तैले तक्रे गवां मूत्रे चारणाले कुलत्थजे ।
शोधयेत् त्रिफलाक्काथे माक्षिकं वह्नितापितम् ॥

Thirteenth process.

Makshika is purified if it is heated and immersed in each of the following :—oil, takram, decoction of kulattha and that of triphala.

अथ माक्षिकस्य मारणम् ।

प्रथमो विधिः ।

मातुलुङ्गाम्बुगन्धाभ्यां पिष्टं मूषोदरे स्थितम् *।
पञ्चक्रोड़पुटैर्दग्धं म्रियते माक्षिकं खलु ॥ **

Incineration of Makshika.

First process.

Makshika is incinerated, if it is rubbed with the juice of matulunga and sulphur, confined in a crucible, and then subjected to croda putam † for five times.

द्वितीयो विधिः ।

एरण्डस्नेहगव्याज्यैर्मातुलुङ्गरसेन वा ।
खर्परस्थं दृढं पक्वं जायते धातुसन्निभम् ।
एवं मृतं रसे योज्यं रसायनविधावपि ॥

Second process.

Makshika is incinerated, if rubbed with castor oil, or cow's ghee, or juice of matulunga, and then placed on a basin and heated steadily. Thus incinerated, it may be used in mercurial operations, as well as for medicinal purposes.

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* अगस्तिस्थले अगस्त्य इति पाठान्तरं दृश्यते ।

** क्रोड़पुटं लावकपुटमित्यर्थः प्रथम खण्डे २६८ पृष्ठं द्रष्टव्यम् ।

* Basaka flower, according to another version.

† Croda putam is another name for labaka putam (see page 298, vol I).

तृतीयो विधिः ।

पिष्ट्वा कुलत्थस्य कषायकेण
तक्रेण वाजस्य हि मूत्रकेण ।
संचालयेदग्नौ नियतं कटाहे
मृतिर्व्रजत्येव विहंगमेशः ॥

Third process.

Makshika is incinerated, if it is rubbed with the decoction of kulattha, or takra (curd diluted with water), or goats urine, and then heated in a cauldron, and turned all the while by means of a ladle.

चतुर्थो विधिः ।

माक्षिकस्य चतुर्थांशं गन्धं दत्त्वा विमर्दयेत् ।
उरुवकस्य तैलेन ततः कुर्य्याच्च चक्रिकाम् ॥
शरावसंपुटे कृत्वा पुटेद्‌ गजपुटेन तु ।
धान्यस्य तुषमुर्द्ध्वाधो दत्त्वा शीतं समुद्धरेत् ।
सिन्दूराभं भवेद्‌ भस्म माक्षिकस्य न संशयः ॥

Fourth process.

Makshika with one fourth its quantity of sulphur is to be rubbed with castor oil, and made into cakes, which are to be confined within a samputam, and subjected to gaja putam, with husk of paddy put on all sides of the samputam. This will reduce the makshika to ashes, as red as vermilion.

पञ्चमो विधिः ।

शोधितं माक्षिकं यामं कुमारीरसमर्दितम् ।
कृत्वा चक्राकृतिं शुष्कां कुक्कुटाख्ये पुटे पचेत् ।
सप्तविंशतिवारश्स्ततः स्यादमृतोपमम् ॥

Fifth process.

Purified makshika is to be rubbed with the juice of kumari, made into cakes, dried, and then subjected to kukkuta putam for twenty seven times, which make it like nectar.

अथ माक्षिकस्य सत्वपातनम् ।

प्रथमो विधिः ।

त्रिंशांशनागसंयुक्तं क्षारैरम्लैश्च वर्त्तितम् ।
ध्मातं प्रकटमूषायां सत्त्वं मुञ्चति माक्षिकम् ॥
सप्तवारं परिद्राव्य क्षिप्तं निर्गुण्डिकारसे ।
माक्षिकसत्त्वसंमिश्रं नागं नश्यति निश्चितम् ॥

Extraction of essence of makshika.

Makshikam, mixed with one thirteenth of its weight of lead, rubbed with ksharas and amlas and heated in an uncovered crucible, emits its essence. The lead is then eliminated from the essence, if it is heated and immersed in the juice of nirgundi, for seven times.

द्वितीयो विधिः ।

क्षौद्रगन्धर्वतैलाभ्यां गोमूत्रेण घृतेन च ।
कदलीकन्दसारेण भावितं माक्षिकं मुहुः ॥
मूषायां मुञ्चति ध्मातं सत्त्वं शुल्वनिभं मृदु ।
गुञ्जाबीजसमच्छायं द्रुतद्रावं च शीतलम् ॥
ताप्यसत्त्वं विशुद्धं तद्देहलोहकरं परम् ॥

Second process.

Makshika is to be subjected to repeated bhavanas with honey, castor oil, cow's urine, clarified butter, and juice of banana plant, and then heated in a crucible, with the result that a soft copper like essence comes out of the makshika. The essence, which resembles a gunja seed in colour, is capable of smelting very quickly and is cool and pure, can make the body as strong as iron.

तृतीयो विधिः ।

माक्षिकं शोधितं सम्यग्मर्दयेन् निम्बुकद्रवैः ।
किञ्चिच्च सैन्धवं दत्त्वा युज्यते चानलोपरि ॥
मृण्मूषे स्थापयेत् पश्चात् पार्श्वे पार्श्वेऽथ विन्यसेत् ।
सर्वतष्टंकणं देयं कुक्कुटाख्यं पुटं तदा ।
रक्ताभं लभ्यते सत्त्वं माक्षिकप्रभवं नवम् ॥

Third process.

Makshika, duly purified, is to be rubbed with lime juice and heated a little with some rock-salt. It is then to be kept surrounded on all sides with tankanam, in an earthen crucible, and subjected to kukkuta

putam. This will result in the emission of an essence, somewhat red in colour.

चतुर्थो विधिः।

गोक्षीरैस्तुत्थक्षीरैश्च भाव्यमेरगडतैलकैः।
माक्षिकं दिनमेकन्तु मर्दितं वटकीकृतम्॥
अभ्रवद् धमयेदे तद् सम्यगस्याप्ययं विधिः।
जयन्तीत्रिफलाचूर्णंहरिद्रागुड़टंकणम्॥
पादांशं टंकणस्येदं पिष्ट्वा मूषां विलेपयेत्।
नालिकासंपुटं बद्ध्वा शोषयेदातपे खरे।
ग्राह्यं पातालयन्त्रे च सत्वं ध्मातं पुटेन च॥

Fourth process.

Makshika is to be subjected to bhavana for one day with the milks of cow and tuttha plant and then rubbed and made into a lump which is to be put into an iron tube, dried in the sun and then heated by means of a Patala Kosthi or Patala Jantram, exactly in the same way as mica. The inner surface of the crucible, in this case, is to be coated with a paste made of jayanti, powdered triphala, turmeric, molasses, and tankanam, the last mentioned being one fourth in quantity of the preceding four things combined.

माक्षिकसत्त्वप्रयोगः।

माक्षीकसत्त्वञ्च रसेन पिष्टं
कृत्वा विलीने च वलिं निधाय।
संमिश्रय संमर्द्य च खल्वमध्ये
निक्षिप्य सत्वद्रुतिमभ्रकस्य॥

विधाय गोलं लवणाख्ययन्त्रे
पचेद् दिनार्द्धं मृदुवह्निना च ।
स्वतः सुशीतं परिचूर्ण्य सम्यग्
वल्लोन्मितं व्योषविड़ङ्गयुक्तम् ॥
संसेवितं चौद्रयुतं निहन्ति
जरां सरोगां त्वपमृत्युमेव ।
दुःसाध्यरोगानपि सप्तवासरै
र्नैतेन तुल्योऽस्ति सुधारसोऽपि ॥

Use of essence of makshika.

Essence of makshika is to be rubbed with mercury until the former disappears altogether. Sulphur is then to be rubbed similarly. Liquefied essence of mica is then to be mixed with the amalgam and made into a ball which is to be subjected to heat for twelve hours in a Lavana Jantram, by means of a mild fire. When cooled of itself, the product is to be taken out, and used in doses of one balla a day with the anupanam of honey, trikatu, and bidanga. Thus used, it cures in a week, senility and all sorts of diseases including those which are very obstinate.

अथ माक्षिक सत्त्वद्रुतिः ।

एरण्डोत्थेन तैलेन गुञ्जाचौद्रं च टंकणम् ।
मर्दितं तस्य वापेन सत्त्वं माक्षिकजं द्रवेत् ॥

Liquefaction of essence of makshika.

Essence of makshika is liquefied, if it is mixed with a little of the compound made of gunja seeds, honey, and tankanam, rubbed with castor oil.

अथ माक्षिकस्य अनुपानम् ।

अनुपानं वराव्योषवेल्लं साज्यं हि पक्षिणः ।

Accompaniments of makshika.

Incinerated makshika is to be used in medicine with the following accompaniments :—triphala, trikatu, bidanga, and ghee.

अशुद्धमाक्षिकभक्षणजनितदोषस्य शान्तिः ।

कुलत्थस्य कषायेण माक्षिकविकृतिं जयेत् ।
दाड़िमस्य त्वचा वापि प्रोक्ता विकृतिनाशिनी ॥

Removal of evil effects caused by makshika, not properly purified.

The evil effects of makshika are removed by decoction of kulattha or of the bark of pomegranates.

अथ विमलः ।

रक्तप्रभायुतो पक्षो विमलो कथ्यते बुधैः ।
विमलस्त्रिविधः प्रोक्तो हेमाद्यस्तारपूर्वकः ।
तृतीयः कांस्यविमलस्तत्तत्कान्त्या स लक्ष्यते ॥
वर्त्तुलः कोणसंयुक्तः स्निग्धश्च फलकान्वितः ।
मरुत्पित्तहरो वृष्यो विमलोऽति रसायनः ॥
पूर्व्वो हेमक्रियासूक्तो द्वितीयो रूप्यकृन् मतः ।
तृतीयो भेषजे तेषु पूर्वपूर्वो गुणोत्तरः ॥

Bimala (pyrites with red tints).

Makshika with red tints is called bimala. It is of three kinds, viz, swarna bimala (having golden or

yellow tints as well), roupya bimala (having silvery or white tints as well), and kansya bimala (having tints of kansya or bell-metal as well). They are to be recognized by their colour. All of them are globular, furnished with angles and faces, and soft. Bimala is a pacifier of air and animal heat in the system, nutritive, and a good preventer and curer of diseases. The first, viz, swarna bimala is used in operations leading to the transformation of base metals into gold. The second, viz, roupya bimala, is used in operations leading to the transformation of base metals into silver ; whereas the third, viz, kansya bimala, is used only in medicines. In quality, the first is better than the second, and the second is better than the third.

अथ विमलस्य शोधनम् ।

प्रथमो विधिः ।

मूत्रारणालतैलेषु गोदुग्धे कदलीरसे ।
कौलत्थे कोद्रवक्काथे माक्षिकं विमलं तथा ॥
मुहुः शूरणकन्दस्थं स्वेदयेद् यत्नपूर्वकम् ।
क्षाराम्ललवणैश्चैव तैलसर्पिः समन्वितम् ।
पुटत्रयं प्रदातव्यं ततस्तु शोधितं भवेत् ॥

First process.

Makshika as well as bimala is first of all to be put inside the tuber of a shuranam, and then boiled with each of the following :—cow's urine, aranala, oil, cow's milk, banana plant juice, decoction of kulattha, and decoction of kodrava.

It is then to be rubbed with kshara, amla, salt, oil, and ghee, and subjected to putam for three times. This is how it is purified.

द्वितीयो विधिः ।

आटरूषजले स्विन्नो विमलो विमलो भवेत् ।

Second process.

Bimala is purified, if boiled with the decoction of basaka.

तृतीयो विधिः ।

रम्भातोयेन संपाच्यो विमलो वा विशुद्धये ।

Third process.

Bimala may be purified, if boiled well with banana plant juice.

चतुर्थो विधिः ।

जम्बीरस्वरसे स्विन्नो मेषशृङ्गीरसेऽथवा ।
आयाति विमलः शुद्धिं धातवश्च तथाऽपरे ॥

Fourth process.

Bimala, as well as other metals, is purified, if boiled with the juice of a lime fruit or of meshashringi.

पञ्चमो विधिः ।

विमलस्त्रिविधः पाच्यो रम्भातोयेन संयुतः ।
अम्लवेतसधान्याम्लमेषीमूत्रेण पेषितः ।
दोलायन्त्रे चतुर्यामं शुद्धिरेषा महोत्तमा ॥

Fifth process.

Three kinds of bimala are purified, if rubbed with the juice of amla betasa, dhanya amla, and ewe's urine, and boiled in a Dola Jantram for twelve hours with the juice of banana plant.

षष्ठो विधिः ।

कर्कटीमेषशृंग्युत्थैर्द्रवैर्जम्बीरजैः रसैः ।
भावयेदातपे तीव्रे विमलः शुध्यति ध्रुवम् ॥

Sixth process.

Bimala is purified, if subjected to bhavana in intense heat of the sun with decoctions of karkata shringi, mesha shringi, and lime juice.

अथ विमलस्य भस्मीकरणम् ।

प्रथमो विधिः ।

गन्धाश्मलकुचाम्लैश्च म्रियते दशभिः पुटैः ॥

Incineration of bimala.

First process.

Bimala is incinerated by being rubbed with sulphur and juice of lakucha, and then subjected to putam for ten times.

द्वितीयो विधिः ।

मातुलुङ्गाम्बुगन्धाभ्यां पिष्टः कूर्मपुटे स्थितः ।
त्रिभिर्गजपुटैर्दग्धो म्रियते विमलः खलु ॥

Second process.

Bimala is incinerated, if it is subjected to Gajaputam for three times, after having been rubbed each time with sulphur and juice of matulunga.

अथ विमलस्य सत्वपातनम् ।

प्रथमो विधिः ।

सटंकलकुचद्रावैर्मेषशृंग्याश्च भस्मना ।
पिष्टो मूषोदरे लिप्तः संशोष्य च निरुध्य च ॥
षट् प्रस्थकोकिलैर्ध्मातो विमलः सीससंनिभम् ।
सत्वं मुञ्चति तद्युक्तो रसः स्यात् सुरसायनः ॥

Extraction of essence of bimala.

First process.

The inner surface of a crucible is to be coated all over with bimala, previously rubbed well with tankanam, decoction of lakucha, and ashes of mesha shringi. The crucible is then to be dried, closed hermetically, and heated by means of six prasthas of charcoal, with the result that bimala discharges an essence resembling lead. Mercury, combined with this essence, becomes a preventer and curer of senility and physical decay.

द्वितीयो विधिः ।

विमलं शिग्रु तोयेन कांक्षीकासीसटंकणैः ।
वज्रकन्दसमायुक्तं भावितं कदलीरसैः ॥

मोक्षकक्षारसंयुक्तं ध्मापितं मूकमूषगम् ।
सत्वं चन्द्रार्कसंकाशं मुञ्चति नात्र संशयः ॥ *

Second process.

Bimala is to be mixed with kankshi (saurashtra mrittika), kasisa, tankanam, wild shuranam, kshara of mokshaka tree, and subjected to bhavana with juices of shigru and banana plant. It is then to be put inside a blind crucible and heated with the result that the bimala will discharge an essence resembling a mixed metal containing sixteen parts of silver and twelve parts of copper.

विमलसत्त्वस्य प्रयोगः ।

तत् सत्वं सूतसंयुक्तं पिष्टं कृत्वा सुमर्द्दितम् ।
विलीने गन्धके क्षिप्त्वा जारयेत् त्रिगुणालकम् ॥
शिलां पञ्चगुणां चापि वालुकायन्त्रके खलु ।
तारभस्म दशांशेन तावद् वैक्रान्तकं मृतम् ॥
सर्वमेकत्र संचूर्ण्य पटेन परिगाल्य च ।
निक्षिप्य कूपिकामध्ये परिपूर्य्य प्रयत्नतः ॥
लीढ़ो व्योषवरान्वितो विमलको युक्तो घृतैः सेवितो ।
हन्याद् दुर्भगकृज् जराश्वयथुकं पाण्डुप्रमेहारुचीः ॥

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* भागाः षोड़श तारस्य तथा द्वादश भास्वतः ।
एकत्रावर्त्तितास्तेन चन्द्रार्कमपि कथ्यते ॥

मूलार्त्तिं ग्रहणीं च शूलमतुलं यक्ष्मामयं कामलां।
सर्वान् पित्तमरुद्गदान् किमपरैर्योगैरशेषामयान्॥

Use of the essence of bimala.

One unit of essence of bimala is to be rubbed with an equal quantity of mercury, and the same quantity of sulphur, until the sulphur disappears altogether ; It is next to be mixed with the following ;—

Three units of haritala, five units of manasshila, one tenth of a unit of incinerated silver, the same quantity of incinerated vaikranta. All these are to be mixed together and sifted through a piece of cloth, and then subjected to heat by means of a Baluka Jantram,

The medicine, thus prepared, cures the following diseases, if taken with trikatu, triphala, and ghee :— senility which causes unhappiness, swelling of the body, anemia, gonorrhoea, loss of appetite, piles, chronic diarrhoea, colic, pthisis, jaundice, and all sorts of diseases due to an abnormal excess of vayu (air) and pittam (animal heat) in the system. For the cure of these diseases, no other medicines are considered necessary.

अथ शिलाधातुः (शिलाजतु)।

शिलाजतु हि शैलेयमाद्रं गिरिजमश्मजम्।
धातुजमश्मजतुकं शैलजं चाश्मसंभवम्।
गैरेयं गिरिजं गिरिनिर्य्यासः शैलधातुजम्॥

हेमाद्याः सूर्य्यसंतप्ताः स्रवन्ति गिरिधातवः ।
जत्वाभं मृदुमृत्स्नाभं यन्मलं तच्छिलाजतु ॥
शिलाधातुर्द्विधा प्रोक्तो गोमूत्राद्यो रसायनः ।
कर्पूरपूर्वकश्चान्यस्तत्राद्यो द्विविधः पुनः ॥
ससत्त्वश्चैव निःसत्त्वस्तयोः पूर्वो गुणाधिकः ।
हेम्नोऽथ रजतात् ताम्रात् वरं कृष्णायसादपि ॥
नागात् वङ्गात् स्रवत्येष तप्तात् तु तीव्ररौद्रतः ।
यथाक्रमं वातपित्ते श्लेष्मपित्ते कफे त्रिषु ॥
विशेषेण प्रशस्यन्ते मला हेमादिधातुजाः ।
रसायनप्रयोगेषु लौहजस्तु विशिष्यते ॥

Shila-jatu (*Bitumen*).

Shilajatu is the exudation caused by the intense heat of the sun, from rocks in the womb of which lie deposited gold and other metals. It is soft as mud and resembles shellac in appearance.

Shila-jatu is of two kinds, viz. (1) Gomutra-shila-jatu, *i.e.*, the variety which possesses the odour of cow's urine ; and (2) karpura-shila-jatu, *i,e.*, the variety which has the odour of camphor. The first of these two, viz, Go-mutra shilajatu, is again sub-divided into two classes, viz. the variety which has got some essence or substance and that which has got no essence or substance. Of these two, that which has got essence or substance is better than the other variety.

Shilajatu exudes from heated rocks containing gold, silver, copper, iron, tin, and lead, that exuding from iron ores being the best in quality. Shilajatus coming out of gold, silver, copper, and iron are especially suitable for the pacification of an abnormal excess in the system of vayu (air) combined with pittam (animal heat), kapha (phlegm) combined with pittam (animal heat), kapha (phlegm) only, and the three doshas (vayu, pittam, and kapha) combined, respectively. For the purpose of preventing and curing senility, the shilajatu which comes out of iron is the best.

शिलाधातूनां विशेषगुणाः।

(१) काञ्चनशिलाजतु।

मधुरं स्वल्पतिक्तं च जवापुष्पनिभं च यत्।
स्निग्धं घनं गैरिकाभं सुशीतं काञ्चनास्त्रु तम्।
विपाके कटुतिक्तं च वातपित्तविनाशनम्॥

(२) रजतशिलाजतु।

रौप्याकराद्रद्यं शशिशंखवर्णं
सक्षारकट्वम्लरसं विदाहि।
शीतं विपाकान् मधुरश्च भारि
पाण्डुं विशेषाद् विनिहन्ति पित्तम्॥
मेहामजीर्णज्वरपांडुशोष-
प्लीहाद्यवातं शमयेद् हि सद्यः॥

(३) ताम्रशिलाजतुः ।

मयूरकण्ठोपमचाषपत्त-
वर्णं सतिक्तं कटु तीक्ष्णवीर्य्यम् ।
ताम्राश्मजं तद्धि सुलेखनं च
मेहाम्लपित्तज्वरशोषहारि ॥

(४) लौहशिलाजतु ।

यत् तु गुग्गुलुसंकाशं तिक्तकं लवणान्वितम् ।
विपाके कटुशीतं च सर्वश्रेष्ठं तदायसम् ।
रसायनं परं तद्धि त्रिदोषस्य विनाशनम् ॥

(५) वंगशिलाजतु ।

किञ्चित् सतिक्तं कटुसान्द्रमृत्स्नं
त्रपुप्रसूतं त्रपुवर्णगन्धम् ।
शोथप्रमेहज्वरशोषहारि
शीताम्लपित्तं विनिहंति सद्यः ॥

(६) सीसकशिलाजतु ।

नागात् प्रसूतं मृदु चोष्णवीर्य्यं
तिक्तं च वर्णात् कुसुमेन तुल्यम् ।
रसेन तत् स्यात् कटुकप्रधानं
वर्णाश्च तेजश्च ददाति वीर्य्यम् ॥

Special properties of different kinds of shila-jatu.

(1) Gold shilajatu.

The shila-jatu which exudes from ores containing gold is sweet, slightly bitter, red like java flower, soothing, dense, and having a tinge of red ochre. It produces a cooling effect on the system, turns pungent and bitter, when digested in the stomach *, and pacifies an abnormal excess of vayu and pittam.

(2) Silver shilajatu.

The shilajatu which exudes from silver ores is as white as moon or conchshell. It has the taste of kshara mixed with pungence, sourness, and sweetness. It is not easily digested. It gives rise to belching and inflammation of the heart. It is dense. It cures

* The properties of things having different tastes, when taken internally, are given here in brief :—

A sweet thing is nutritive ; it pacifies vayu and pittam, but increases mucus and other dirts in the system. A sour thing increases the power of digestion, make the blood impure, increases pittam, but pacifies vayu.

A thing with a salty taste increases appetite, destroys semen, strength, and eye-sight, pacifies vayu, but increases phlegm and pittam.

A pungent thing increases vayu, pittam, and appetite ; destroys phlegm, obesity, semen, etc, and causes constipation.

A bitter thing removes thirst, fever, pittam, phlegm, and impurities of the blood, increases vayu, but destroys blood, semen, flesh, etc. It is not to be taken in excess. (N. B. The use of quinine and such bitter things causes a waste of blood, semen, flesh, marrow, fat, and bone, leading to all sorts of diseases, especially chronic fever (Malaria and kala-azar), consumption, and paralysis.) A thing with astringent taste destroys phlegm, blood, and pittam ; it increases vayu.

all diseases due to pittam, and especially, anemia and jaundice. It also cures spermatorrhoea, mucus, chronic fever, anemia, consumptipn, enlargement of the spleen, and diseases due to an excess of vayu.

(3) *Copper sila-jatu.*

Copper shilajatu has the same colour as that of the neck of a peacock and of the feathers of a papiya bird. It is bitter, pungent, and stimulant. It is a good remover of obesity.

(4) *Iron shila-jatu.*

It resembles guggulu in appearance ; is bitter and saltish ; and turns pungent and cool, when digested in the stomach. It is a preventer and curer of senal decay, and has the power of pacifying the three doshas, viz., vayu, pittam, and kapha. It is the best of all shila-jatus.

(5) *Tin shila-jatu.*

It is somewhat bitter, pungent, dense, mud-like, and has the odour and colour of tin. It destroys in a short time, dropsy, gonorrhæa, fever, consumption, and erysipelas.

(6) *Lead shila-jatu.*

It is soft, stimulating, and bitter in taste, but turns pungent when digested in the stomach. It has the colour of a flower. It imparts complexion, vitality, and vigour to the person who uses it regularly.

जात्यशिलाजतुनः परीक्षा ।

लौहकिट्टायते वह्नौ विधूमं दह्यतेऽम्भसि ।
तृणाद्यग्रे कृतं सर्वमधो गलति तन्तुवत् ॥

Test of genuine shila-jatu.

Genuine shila-jatu will burn without emitting any smoke, and when burnt, will assume the appearance of oxidised iron. If thrown into water, by means of grass points, it will sink in the shape of threads.

शिलाजतूनां साधारणगुणाः ।

अनम्लश्चाकषायश्च कटुपाकि शिलाजतु ।
योगवाहि रसायनं नात्युष्णं नातिशीतलम् ॥
छेदि तद्धि निहन्ति च कफकम्पाश्मशर्करम् ।
मूत्रकृच्छ्रं क्षयं श्वासं वातार्शांसि च सत्वरम् ।
अपस्मारं तथोन्मादं छर्दिं कुष्ठं तथा क्रिमीन् ॥
नूनं सज्वरपाण्डुशोफशमनं मेहाग्निमान्द्यापहं
मेदश्छेदकरं च यक्ष्मशमनं शूलामयोन्मूलनम् ।
गुल्मप्लीहाविनाशनं जठरहृच्छूलघ्नमामापहं
सर्वत्वग्गदनाशनं किमपरं देहे च लोहे हितम् ॥

Properties of shilajatus in general.

Shilajatu is neither sour nor astringent. It turns pungent after it is digested in the stomach. It has the merit of increasing the properties of the substance with which it is mixed and taken internally. It prevents and cures senal decay. It produces neither a heating nor a cooling effect on the system.

It has the property of removing mucus and other dirts from the system. It can also cure an excess of phlegm, shaking of the limbs, stone disease, sugar in

urine, stricture and gleet, consumption, asthma, piles due to an excess of vayu, hysteria, insanity, nausea, leprosy, worms, fever, jaundice, dropsy, spermatorrhoea, loss of appetite, obesity, pthisis, colic, gulma, enlargement of the spleen, udara-roga, pain in the heart, dysentery, and all sorts of skin diseases. It is very useful as a medicine as well as in alchemy.

शिलाधातोर्शोधनम् ।

प्रथमोविधिः ।

गोदुग्धे त्रिफलाभृङ्गद्रवैः पिष्टं शिलाजतु ।
दिनैकं लोहजे पात्रे ततः शुष्कं विशुध्यति ॥

Purification of shilajatu.

First process.

Shilajatu is purified, if it is rubbed for one day with any one of the following and then dried :—cow's milk, decoction of triphala, and juice of bhringaraja.

द्वितीयोविधिः ।

शिलाजतु समानीय सूक्ष्मं खण्डं विधाय च ।
मलिनं यद्‌ भवेत् तच्च क्षालयेत् केवलाम्भसा ।
धूपयेच्चागुरुनिम्वतन्त्रचाढ़कीयवघृतैः ॥
निक्षिप्यात्युष्णपानीये यामैकं स्थापयेत् ततः ॥
क्वाथे वा दशमूलस्य त्रिफलासलिलेऽपि वा ॥
मर्दयित्वा ततो नीरं गृह्णीयाद्‌ वस्त्रगालितम् ।
संस्थाप्य लोहजे पात्रे मृत्पात्रे वातपे न्यसेत् ॥

उपरिस्थं घनं यत् स्यात् तत् क्षिपेदन्यपात्रके ।
धारयेदातपे तस्मादुपरिस्थं घनं नयेत् ॥
अधः स्थितं च यच्छेषं तस्मिन् नीरं विनिक्षिपेत् ।
विमर्द्य धारयेद् घर्मे पूर्ववच्चैव तन्नयेत् ॥
एवं पुनः पुनर्नीत्वा मासद्वये शिलाजतु ।
भवेत् कार्य्यक्षमं वह्नौ क्षिप्तं लिङ्गोपमं भवेत् ॥
निर्धूमञ्च ततः शुद्धं सर्व्वकर्मसु योजयेत् ।
वातपित्तकफघ्नैस्तु निर्यूहैस्तं सुभावयेत् ।
वीर्य्योत्कर्षविधानाय सर्व्वैरेकैकशोऽपि वा ॥

Second process.

Shilajatu is to be cut into pieces and washed off with water for the removal of dirts. It is then to be exposed to a smoke emitted by burnt aguru, nimba leaves, guduchi, adhaki, java, and ghee. It is then to be immersed for three hours in hot water or decoction of dashamula or triphala. It is next to be rubbed and filtered through a piece of cloth, and kept in an earthen pot, exposed to the sun. The dense and cream-like substance collected on the surface of the liquid will have to be taken out and kept in another pot. The process is to be repeated as many times as necessary, until the whole of the pure shilajatu is taken out. The sediment is to be rubbed again with hot water and again exposed to the sun, the dense and cream-like substance being taken out in the foregoing manner. This cream-like substance, which is nothing but pure shilajatu, may thus be

collected in two months. Śhilajatu, thus purified, may be used for medicinal purposes. If thrown upon fire, after purification, it will emit no smoke and will have the appearance of penice. For the purpose of increasing the strength of this shilajatu, it may be subjected to bhavana with juices or decoction of drugs which can pacify the three doshas.

तृतीयोविधिः ।

व्याधिव्याधितसात्म्यं समनुसरन् भावयेदयःपात्रे ।
प्राक् केवलजलधौतं शुष्कं शिलाजं क्वाथैस्ततो
भाव्यम् ॥
तुल्यं गिरिजेन जले वसुगुणिते भावनौषधं क्वाथ्यम् ।
तत्क्वाथे पादांशे पूतोष्णे * प्रक्षिपेद् गिरिजम् ।
तत् समरसतां यातं संशुष्कं प्रक्षिपेद् रसे भूयः ॥
स्वैः स्वैरेवं क्वाथैर्भाव्यं वारानेव सप्त ।
अथ स्निग्धस्य शुद्धस्य घृतं तिक्तकसाधितम् ॥
त्र्यहं युञ्जीत गिरिजमेकैकेन तथा त्र्यहं ।
फलत्रयस्य यूषेण पटोल्या मधुकस्य च ।
शिलाजमेवं देहस्य भवत्यत्युपकारकम् ॥

Third process.

Shilajatu is first of all to be washed off with water, and dried. It is then to be subjected to bhavana with decoctions or juices of vegetable drugs to be decided

* पूतं वस्त्रपूतं उष्णञ्च तस्मिन् पूतोष्णे ।

upon after consideration of the nature of the disease, the patient, his habits, and the food he is accustomed to. Such a decoction is prepared by boiling in an earthen pot the vegetable drug, equal in quantity to the shilajatu, meant to be purified, with eight times its weight of water, to be reduced to one fourth the quantity of this water (or double the quantity of the shilajatu). The shilajatu is now to be dissolved in the hot decoction, duly filtered by means of a piece of cloth, and dried. The process is to be performed for seven times in respect of each kind of decoctions. Such a shilajatu is to be administered to a patient who has already been soothed (by taking clarified butter mixed with a little of rocksalt), duly purified by purgation, and has taken for three days clarified butter, prepared with bitters (such as panchaticta ghritam). Such a patient is to take shila-jatu with a decoction of triphala on the first day, with a juice of patola on the second day, and with a decoction of jasti-madhu on the third day ; the order being repeated so long as it is considered necessary to let the patient take shila-jatu. Taking of shilajatu in this way proves to be very useful.

चतुर्थो विधिः ।

लोहस्थितं निम्बगुड़ूचीसर्पिर्यवैर्यथावत् परि-
भावयेत् तत् ।
सन्तानिकाकीटपतंगदंशदुष्टौषधिदोषनिवारणाय ॥
तत्प्रकारः कथ्यते । *

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* सन्तानिका तद्बहिःसंलग्नमृत्तिकादिमलः ।

उष्णे च काले रवितापयुक्ते व्यभ्रे निवाते समभूमि-
भागे ।
चत्वारि पात्राण्यसितायसानि न्यस्यातपे तत्र
कृतावधानः ॥
शिलाजतु श्रेष्ठमवाप्य पात्रे प्रक्षिप्य तस्माद्
द्विगुणञ्च तोयम् ।
उष्णं तदूर्द्ध्वं क्वथितञ्च दत्वा विशोधयेत् तन्
मृदितं यथावत् ॥
ततस्तु यत्कृष्णमुपैति चोर्द्ध्वं सन्तानिकावद्
रविरश्मितप्तम् ।
पात्रे तदन्यत्र ततो निदध्यात् तत्रापरं कोष्णजलं
क्षिपेच्च ॥
पुनश्च तस्मादपरत्र पात्रे पश्चाच्च पात्रादपरत्र भूयः ।
यदा विशुद्धं जलमेवमूर्द्ध्वं कृष्णं समस्तं मलमेत्य-
धस्तात् ।
तदा त्यजेत् तत् सलिलं मलञ्च शिलाजतु स्याज्जल-
शुद्धमेवम् ॥

Fourth process.

In order to free shilajatu from impurities due to foreign matters and contaminations caused by worms, flies, and poisonous drugs, it should be dissolved in iron pots with a solution of juices of nimba, guduchi

mixed with clarified butter, and java in the manner described below :—

In the hot weather, when the sky is free from clouds and there is no wind, four pots made of black iron are to be placed in a level piece of land, heated by the sun's rays. Excellent shilajatu is to be kept in one of these pots and dissolved with twice its weight of hot water and half its weight of the solution referred to above. This solution is to be duly filtered through a piece of cloth and exposed to the heat of the sun, which will cause a black cream-like thing, rise on the surface of the solution. This cream-like substance is to be removed into another pot and mixed with some hot water. The heat of the sun will cause a cream-like substance rise at the surface of the liquid. This substance is to be removed into a third pot and mixed with hot water, as before. The cream-like substance rising on the surface of the third pot will have to be removed into the fourth pot. The process is to be continued until the whole of the dirts separate from the pure substance and subside at the bottom. The pure cream-like substance, which is shilajatu proper, is to be taken out carefully, to the exclusion of the water and sediments.

पञ्चमोविधिः ।

काले तु रवितापाढ्ये कृष्णायसजं शिलाजतु प्रवरम् ।
त्रिफलारससंयुक्तं त्र्यहश्च शुष्कं पुनः शुष्कम् ॥
दशमूलस्य गुड़ूच्या रसे वलायास्तथा पटोलस्य ।
मधुकरसे गोमूत्रे त्र्यहं त्र्यहं भावयेत् क्रमशः ॥

एकाहं क्षीरेण तु तत् पुनर्भावयेच्छुष्कम् ।
सप्ताहं भाव्यं स्यात् क्वाथेनैषां यथालाभम् ॥
काकोल्यौ द्वे मेदे विदारीयुग्मं शतावरी द्राक्षा ।
ऋद्धियुगर्षभवीरा मुण्डितिका जीरके चांशुमत्यौ ॥
रास्नापुष्करचित्रकदन्तीभकणाकलिङ्गचव्याब्दाः ।
कटुका शृङ्गीपाठे तानि मिलितानि च क्वाथ्यानि ॥
एवं क्रमेण संशोध्य क्वाथे शालसारादिनः ।
भावयेत् तु शिलाजतु यथाविधिश्चिकित्सकः ॥
शालयुग्मौ करञ्जौ द्वौ खदिरं चन्दनद्वयम् ।
गर्द भाण्डोऽर्ज्जुनश्चेह लोध्रयुग्मधवासनाः ॥
शिरीषागुरुकालीयपूगपूतीककर्कटाः ।
शालसारादिरप्येषो गणः श्लेष्मगदापहः ॥
मेहगुल्मार्शःकुष्ठादिमेदःपाण्डुरुजापहः ।
एभिर्दिवातपे शोष्यं रात्रौ रात्रौ च भावयेत् ॥
द्रवेण यावता द्रव्यमेकीभूयार्द्र तां व्रजेत् ।
भवेत् प्रमाणं निर्दिष्टं भिषग्भिर्भावनाविधौ ।
भाव्यद्रव्यसमं क्वाथ्यं क्वाथ्यादष्टगुणं जलम् ॥
अष्टांशशोषितः क्वाथो भाव्यानां तेन भावना ॥ *

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* शिलाजतुशोधने पादांशशोषितक्वाथस्यापि व्यवहारो दृश्यते —तृतीयोविधिः द्रष्टव्यः ।

Fifth process.

In a hot weather, black Iron shilajatu is to be dissolved with decoction of triphala, duly filtered and dried. The process is to be performed for three times. The same process is to be performed for three times each with dasha-mula, guduchi, bala, patola, madhuka, and cow's urine, respectively. The shilajatu is next to be saturated with milk for one time, and dried. It is next to be saturated for seven times with a decoction of all (or as many as can be procured) of the following combined :—kakoli, kshira-kakoli, meda, mahameda, bidari, kshira-bidari, shatabari, draksha, riddhi, vriddhi. rishabha, jatamansi, mundiri, white jira, black jira, sapta-parni, prisniparni, rasna, puskara-mulam, chitraka root, danti, gaja-pippali, indra-java, chavya, musta, katu-rohini, karkata-shringi, and patha.

The shilajatu is next to be subjected to bhavana with a juice or decoction of each of the undermentioned drugs, called the shala-saradi :—

Shala, pita-shala, nata karanja, visha-karanja, khadira, sweta chandanam, racta-chandanam, gardabhanda (gaya-aswatha), arjuna, white lodhra, red lodhra, dhava, asana, shirisha, aguru, and kaliya (pita chandanam). These drugs, taken together, are called the shala-saradi. They can cure diseases due to an exeess of phlegm, spermatorrhoea, gulma, piles, leprosy, obesity, and jaundice. The shila-jatu is to be subjected to bhavana at night, and dried during day time. The rule regarding the quantity of the drugs mentioned above is this that the quantity of each of these drugs will be equal to that of the shila-jatu and

that each of them is to be boiled in eight times its weight of water, reducible to one eighth (or one fourth, according to a different practice).

षष्ठो विधिः ।

क्षाराम्लगोजलैः प्लुतं शुध्यत्येव शिलाजतु ।
वस्त्रपूतं विशुष्कं तत् सर्व्वकर्मसु योजयेत् ॥

Sixth process.

Shila-jatu is purified, if it is dissolved with a solution of kshara, amla (non-metallic acid), and cow's urine, and then filtered by means of a piece of cloth, and dried.

सप्तमो विधिः ।

दुग्धेन च शिलाधातुं त्रिफलामार्कवद्रवैः ।
लोहपात्रे विनिक्षिप्य शोधयेदतियत्नतः ॥

Seventh process.

Shilajatu is purified, if it is dissolved, in an iron pot, with milk, decoction of triphala, and decoction of bhringaraja, respectively, and dried each time it is so dissolved.

अष्टमोविधिः ।

क्षाराम्लगुग्गुलूपेतस्वेदनीयन्त्रमध्यगः ।
स्वेदितो घटिकामानाच्छिलाधातुर्विशुध्यति ॥

Eighth process.

Shilajatu is purified, if it is subjected to a hot vapour for one hour, by means of a Swedani-Jantram containing kshara, amla, and guggulu.

शोधितशिलाधातोः परीक्षा।

वह्नौ क्षिप्तं तु निर्धूमं पक्वं लिङ्गोपमं भवेत्।
तृणाग्रेणांभसि क्षिप्तमधो गलति तन्तुवत्॥

Test of purified shilajatu.

Shilajatu, properly purified, will burn without emitting any smoke. When sufficiently roasted, it will assume the appearance of penice. If thrown into water by means of the points of a grass, it will sink in the shape of thread.

शिलाधातोः प्रयोगो मात्रा पथ्यापथ्यं च।

विशोधितं शिलाजतु लौहैर्भस्मीकृतैः सह।
तत्पीतं पयसा दद्याद् दीर्घमायुः सुखान्वितम्॥
जराव्याधिप्रशमनं देहदार्ढ्यकरं हि तत्।
मेधास्मृतिकरं धन्यं क्षीराशिनि प्रयोजयेत्॥
प्रयोगः सप्तसप्ताहास्त्रयश्चैकश्च सप्तकः।
निर्दिष्टस्त्रिविधस्तस्य परो मध्योऽवरस्तथा॥
सेवेत यदि षण्मासं रसायनविधानतः।
वलीपलितनिर्मुक्तो जीवेद् वर्षशतं सुखी॥
मात्रा पलं त्वर्द्धपलं स्यात् कर्षस्तु कनीयसी॥
शिलाजतुप्रयोगेषु विदाहीनि गुरूणि च।
वर्जयेत् सर्वकालञ्च कुलत्थान् परिवर्जयेत्॥ *

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* पाषाणस्यापि भेदकं कुलत्थं शिलाधातोः का कथा। अतएव शिजाजतुसेविना कुलत्थं परिहार्य्यमामरणम्।

व्यायामातपमारुतचेतः संतापि गुरु विदाहीनि ।
उपयोगादपि परितो द्विगुणं परिवर्जयेत् कालम् ॥
पिवेन् माहेन्द्रसलिलं कौपं प्रास्त्रावणांवु वा ।
कुलत्थान् काकमाचीं च कापोतांश्च सदा त्यजेत् ॥

Use of purified shilajatu.

Purified shilajatu, taken with milk and a suitable quantity of incinerated iron (dose of iron—$\frac{1}{16}$ tola a day) has the effect of increasing vitality, curing and preventing senility, strengthening the system, and increasing memory and retentive faculties in one who takes a sufficient quantity of milk (and of course a salutary and congenial vegetable diet *). Shilajatu produces an appreciable effect, if it is taken for one week ; it produces better result if it is taken for three weeks ; and if taken for seven weeks, it produces much better results. One who takes shilajatu for six weeks, observing all the regulations to be followed with regard to the use of medicines meant for the cure and prevention of senility, lives a happy and healthy life for 100 years. Dose of shila-jatu— one tola a day is the ordinery dose ; two tolas a day produces a better effect ; and four tolas a day produces an excellent effect.

While taking shilajatu, one should avoid foods which are fried, roasted (with or without oil), sour, fermented, and heavy. The man who takes shilajatu

* Milk proves injurious to the system, if it is taken with such things as meat, fish, sours, beans, etc. (See Charaka and other books on Indian Hygiene).

should abstain from taking, once for all, kulattha gram, in as much as the latter can corrode even stone, and has therefore a property which destroys the effect which shilajatu produces upon the human system.

The man who takes shilajatu should avoid the following, not only during the period he takes it, but also during an equal period of time just preceding and following that period ;—physical exercise, exposure to the sun's rays, exposure to wind, things which trouble the mind, heavy food, food which gives rise to inflammation of the body, *i. e.*, food which is sour, pungent, fried with or without oil, fermented, and food which is difficult to digest.

He should drink rain water, carefully collected during the rainy season, and water from big wells and fountains. He should avoid, once for all, kulattha gram, kakamachi, and flesh of pigeons.

शिलाधातोर्भस्मीकरणम् ।

शिलया गन्धतालाभ्यां मातुलुङ्गरसेन च ।
पुटितो हि शिलाधातुर्म्रियतेऽष्टगिरिण्डकैः ॥

Incineration of shilajatu.

Shilajatu is incinerated, if it is mixed with manas-shila, gandhaka, and haritala—all rubbed together with the juice of matulunga, and then subjected to putam with a fire made of eight pieces of cowdung cakes.

शिलाजतुभस्मप्रयोगः ।

भस्मीभूतशिलोद्भवं समतुलं कान्तं च वैक्रान्तकम्
युक्तं च त्रिफलाकटुत्रिकघृतैर्वल्लेन तुल्यं भजेत् ।

पाण्डौ यक्ष्मगदे तथाऽग्निसदने मेहेषु मूलामये
गुल्मप्लीहमहोदरे वहुविधे शूले च योन्यामये ॥

Use of incinerated shilajatu.

Incinerated shilajatu, in doses of 3 ractis, mixed with an equal quantity of kanta iron, vaikranta, triphala, trikatu, and ghritam should be prescribed in jaundice, anemia, pthisis, loss of the power of digestion, spermatorrhœa, piles, gulma, enlarged spleen, udara-roga, all sorts of colic, and diseases of the vagina.

शिलाधातोः सत्त्वम् ।

पिष्टं द्रावणवर्गेण साम्लेन गिरिसम्भवम् ।
क्षिप्त्वा मूषोदरे रुद्ध्वा गाढ़ध्मातो हि कोकिलैः ॥
सत्त्वं मुञ्चेच्छिलाधातुः स्वसनैर्लोहसंनिभम् ।
लौहवन् मारयेदेतद् लौहवच्च प्रयोजयेत् ॥

Essence of shilajatu.

Shila-jatu discharges its essence, if rubbed with the *dravana-varga* and some vegetable acid, and heated in a crucible by a strong fire made of coal, which is to be blown by means of bellows. The essence, thus extracted, has the appearance of iron. It should be incinerated and applied in medicines in the same way as iron.

कर्पूरशिलाजतु ।

पाण्डुरं सिकताकारं कर्पूराद्यं शिलाजतु ।
मूत्रकृच्छ्राश्मरीमेहकामलापाण्डुनाशनम् ॥

एलातोयेन संभिन्नं सिद्धं शुद्धिमुपैति तत्।
नैतस्य मारणं सत्वपातनं विहितं वुधैः॥

Karpura-shila-jatu (or shilajatu having the odour and appearance of camphor).

It is found in the shape of sands, is yellow-white in colour, and is efficacious in stricture, gleet, stone disease, spermatorrhoea, gonorrhœa, jaundice, and anemia. It is purified, if dissolved and boiled well with a decoction of ela. The sages have not considered it necessary to incinerate it, and to extract an essence from it.

अशुद्धशिलाजतुसेवने दोषः।

अशुद्धं दाहमूर्च्छादीन् भ्रमपित्तास्रशोणितम्।
शिलाजतु प्रकुरुते मान्द्यमग्नेश्च विड्ग्रहम्॥

Evil effects of taking impure shila-jatu.

Shila-jatu, not properly purified, gives rise to inflammation, hysteric fits, giddiness, hemorrhage, loss of appetite, and constipation,

शिलाजतूत्थविकाराणां निवारणोपायः।

मरिचं घृतसंयुक्तं सेवनाद् दिनसप्तकम्।
शिलाजतुभवो दोषः शान्तिमाप्नोति निश्चितम्॥

How to cure the diseases due to the use of impure shila-jatu.

The diseases due to an improper use of shila-jatu may be cured by taking, for seven days, maricham (in doses of $\frac{1}{4}$ of a tola a day), mixed with ghee.

ऊषराख्यं शिलाजतु। *

शिलाजतु द्विधा ज्ञेयं तत्राद्यं गिरिसंभवम्।
द्वितीयं स्यादूषरायां मृत्तिकाजलयोगतः॥
ऊषरकं द्वितीयं स्यात् क्षारंच श्वेतवर्णकम्।
अग्निवर्णप्रदं तद्धि हितं मूत्रामयेषु च॥

Sora, a kind of shila-jatu

Shila-jatu is of two kinds, viz, the one which is procured from hills, and the other which is found deposited on the surface of a salty soil, due to the action of rain water on the soil. The second kind of shila-jatu is a white kshara (viz. carbonate of potash). It improves the power of digestion, and the complexion of the skin, and is efficacious in urinary diseases.

अथ तुत्थम्।

तुत्थं वितुन्नकञ्चापि प्रस्तूयते क्रियाविदा।
तुत्थं ताम्रोपधातुर्हि गन्धताम्रेण तद्भवेत्॥
किञ्चित्ताम्रगुणं तद्धि वक्ष्यमाणगुणश्च तत्।
तुत्थकं कटुकं क्षारं कषायं वामकं लघु॥ †
लेखनं भेदनं शीतं चक्षुष्यं कफपित्तहृत्।
विषाश्मकुष्ठकण्डूघ्नं क्रिमिघ्नञ्चापि तत् परम्॥

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* भाषायामेतत् सोरा इति कथ्यते।

† वामकं इत्येतस्य स्थले विशदं इति पाठान्तरं दृश्यते।

Tuttham (sulphate of copper, prepared in laboratory.)

It is a compound of copper, and sulphur, prepared by those who know the process. It possesses to a certain extent the properties of copper and is moreover, of the following description :—It is pungent, alkaline, astringent, nauseating, light, destroyer of fat, purgative, cold, improver of eye-sight, pacifier of phlegm and animal heat, and efficacious in poison, stone disease, leprosy, itches, and worms.

तुत्थस्य शोधनम् ।

प्रथमो विधिः ।

जम्वीरजरसैः पिष्टं तुत्थं लघुपुटे पचेत् ।
त्रिदिनं मस्तुना भाव्यं ततो योगेषु योजयेत् ॥

Purification of tuttham.

First process.

Tuttham is purified, if it is rubbed with the juice of lime fruit and subjected to laghu putam, and then subjected to bhavana for three times with curd water.

द्वितीयो विधिः ।

विष्ठया मर्दयेत् तुत्थं मार्जारककपोतयोः ।
दशांशं टंकणं दत्त्वा पचेत् मृदुपुटेन तत् ।
पुटं दध्ना पुटं क्षौद्रै र्देयं तुत्थविशुद्धये ॥

Second process.

Tuttham is purified, if it is rubbed with the stools of cat and pigeon, and then subjected to laghu

putam for three times, after having been rubbed with one tenth its weight of tankanam, curd, and honey, respectively.

तृतीयो विधिः ।

स्रोतोविष्ठासमं तुत्थं सक्षौद्रं टंकणांघ्रियुक् ।
त्रिधा सुपुटितं शुद्धं वान्तिभ्रान्तिविवर्जितम् ॥

Third process.

Tuttham is purified and deprived of its properties of causing vomiting and giddiness, if it is subjected to putam for three times, after having been rubbed with an equal quantity of the stool of cat, one fourth its quantity of tankanam, and a little of honey.

चतुर्थो विधिः ।

गन्धकेनार्धभागेन मर्द्दितं तुत्थकं पचेत् ।
वान्तिभ्रान्ती यदा नस्तस्तदा सिद्धिं विनिर्द्दिशेत् ॥

Fourth process.

Tuttham is purified, if it is rubbed with half its weight of sulphur, and then subjected to putam, as many times as necessary, for the removal of vomiting and giddiness.

पञ्चमो विधिः ।

लुलितमम्लवर्गेण स्नेहसिक्तं हि तुत्थकम् ।
दोलायां वाजिगोमूत्रे दिनं पक्वं विशुध्यति ॥

Fifth process.

Tuttham is purified, if it is saturated with the amla varga (see page 301, vol. I) and with oil, or

clarified butter, and then boiled for one day in the urines of horse and cow, in a Dola Jantram.

तुत्थस्य सत्त्वपातनम् ।

प्रथमो विधिः ।

टंकणेन समांशेन ध्मातं तुत्थं यथाविधि ।
कोष्ठिकायन्त्रयोगेन मुञ्चति सत्त्वमुत्तमम् ॥

Extraction of essence from tuttham.

First process.

Tuttham dischargs its essence, if it is smelted with an equal quantity of borax.

द्वितीयो विधिः ।

गुग्गुलुष्टंकणं लाक्षा स्वर्जि सर्ज्जरसः पटु ।
ऊर्णागुंजाक्षुद्रमीना अस्थीनि शशकस्य च ॥
गुंजामध्वाज्यसंयुक्तं पिण्याकं छागलं पयः ।
तुत्थस्य हि दशांशेन प्रक्षिप्तं वटकीकृतम् ॥
ध्मातं तदन्धमूषायां सत्त्वं मुञ्चति सत्वरम् ।
तत् सत्त्वं जायते ताम्रं निर्मलं च सुशोभनम् ॥

Second process.

Tuttham discharges its essence, if heated in a blind crucible, after having been rubbed with one tenth its weight of the following and made into a ball :— guggulu, tankanam, lac, swarji, sarja rasa (rala), saindhava, urna (fur), gunja, small fish, bone of hare, oil cakes mixed with gunja, honey, clarified

butter, and goat's milk. This essence is no other than pure copper.

तृतीयो विधिः ।

(अग्निना विना तुत्थस्य सत्त्वपातनम् ।)

अथवा तौत्थकं चूर्णं निंबुनीरे विनिक्षिपेत् ।
धारयेल् लोहपात्रे च यावत् सप्त दिनानि वै ॥
लोहपात्रात् समुद्धृत्य सत्त्वं ग्राह्यं सुशोभनम् ।
सिद्धियोगोऽयमाख्यातो हुताशनपुटं विना ॥

(Extraction of essence from tuttham without the application of heat).

Third process.

Essence is extracted from tuttham without any application of heat, if powdered tuttham is kept immersed for seven days in lime juice in an iron pot.

अत्रैव मयूरपक्षात् ताम्रनिष्काशनस्य विधिर्लिख्यते ।

मयूरपक्षमादाय ज्वालयेदाज्यसर्पिषा ।
खलगुग्गुलुमीनोर्णाटंकणस्वर्जिकामधु ॥
गुंजापिप्पललाक्षां च घृतं चैकत्र कारयेत् ।
धमेत् तदन्धमूषायां नागताम्रं प्रजायते ॥

How to extract copper from feathers of peacock.

Peacock's feather is to be burnt with ghee and honey. The ashes, thus prepared, are to be mixed with oil cakes, guggulu, small fishes, tankanam, swarji, honey, gunja, lac growing on aswattha tree, and

ghee. All these are to be mixed together and made into a lump which is to be heated in a blind crucible, resulting in the extraction of a kind of copper, called "Nagatamram."

अथ शूलघ्नी मुद्रिका । *

तुत्थसत्त्वं नागताम्रं हेम चैव समांशकम् ।
मुद्रिकेयं कृतस्पर्शा शूलघ्नी तत्क्षणाद् भवेत् ॥
चराचरं विषं भूतडाकिनीदृग्गतं जयेत् ।
मुद्रिकेयं विधातव्या दृष्टिप्रत्ययकारिका ॥
"रामवत् सोमसेनानी मुद्रिकेयं तदक्षरः ।
हिमालयोत्तरे पार्श्वे अश्वकर्णो महाद्रुमः ।
तत्र शूलं समुत्पन्नं तत्रैव विलयं गतम् ॥"
मन्त्रेणानेन मुद्राभ्यो निपीतं सप्तमन्त्रितम् ।
सद्यः शूलहरं प्रोक्तमिति भालुकिभाषितम् ॥
अनया मुद्रया तप्तं तैलमग्नौ सुनिश्चितम् ।
लेपितं हन्ति वेगेन शूलं यत्र क्वचिद् भवेत् ।
सद्यः सूतिकरं नार्य्याः सद्यो नेत्ररुजापहम् ॥

The finger ring which cures colic and neutralises poison.

Essence of tuttham, nagatamram, and gold are to be taken in equal quantities and made into a ring, the touch of which removes colic pain instantaneously. It also overcomes all sorts of poison and evil influ-

* अन्यविधा शूलघ्नी मुद्रिका द्रष्टव्या ११३ पृष्ठे ।

ences caused on human beings by the evil eyes of ghosts and witches. According to Bhaluki, the great chemist, water drunk seven times, each time touched with this ring and sanctified with the chanting of the mantram given in the text,' cures colic pain instantaneously. The oil which is heated over fire, with this ring kept immersed in it, cures any sort of pain, by merely being rubbed on the part of the body affected. It also effects a speedy and painless child birth in a woman. It also cures eye diseases in a very short time. *

अथ तुत्थसत्त्वस्य भस्मीकरणम् ।

(अग्रे सम्यकप्रसङ्गे द्रष्टव्यम्)

अथ सस्यकम् ।

सस्यकं तु शिखिग्रीवं हेमसारं मयूरकम् ।
सस्यकमणिसंज्ञं हि मयूरतुत्थकं च तत् ॥
मयूरकण्ठसच्छायं भाराढ्यमति शस्यते ।
सस्यकं हि स्वभावजं तुत्थकं कृत्रिमं मतम् ।
एकाभावे परं ग्राह्यं नात्र कार्य्या विचारणा ॥

Sasyakam or blue stone.

It has the colour of the neck of a peacock. The difference between tuttham and sasyakam lies in the fact that tuttham is prepared in the laboratory, whereas sasyakam is a mineral found in nature. In the absence of either of these two, the other may be used.

* See page 114 for a different prescription.

सस्यकस्य गुणाः ।

निःशेषदोषविषहृद्गदशूलमूल-
कुष्ठाम्लपैत्तिकविबन्धहरं परं च ।
रासायनं वमनरेककरं गरघ्नं
श्वित्रापहं गदितमत्र मयूरतुत्थम् ॥

Qualities of sasyaka.

It is a remover of an abnormal excess of the three doshas. It is efficacious in poison, heart disease, colic, piles, leprosy, amla pittam (dyspepsia with acidity and an abnormal excess of pittam), constipation, leucoderma, and toxin. It also cures and prevents senal decay. It causes vomiting and purgation.

सस्यकस्य शोधनम् ।

प्रथमो विधिः ।

सस्यकं शुद्धिमाप्नोति रक्तवर्गेण भावितम् । *
स्नेहवर्गेण संसिक्तं सप्तवारमदूषितम् ॥

Purification of sasyakam.
First process.

Sasyakam is purified, if subjected to bhavana for seven times with the racta-varga, and saturated very carefully with the sneha-varga, after each act of bhavana.

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* कुसुम्भं खदिरो लाक्षा मञ्जिष्ठा रक्तचन्दनम् ।
अक्षीवं बन्धुजीवश्च तथा च पुरगन्धिनी ।
माक्षिकं चेति विज्ञेयो रक्तवर्गोऽतिरञ्जनः ॥

(अक्षीवमित्यस्य स्थले पाठान्तरं "अक्षी च ।" "तथा च पुरगन्धिनी" इत्येतस्य स्थले पाठान्तरं "तथा कर्पूरगन्धिनी" इति ।

द्वितीयो विधिः ।

दोलायन्त्रेण सुस्विन्नः सम्यकः प्रहरत्रयम् ।
गोमहिष्यजमूत्रेषु शुध्यतेऽयश्च खर्परम् ॥

Second process.

Sasyaka is purified, if it is boiled in the urine of cow, she-buffalo, and goat for 9 hours by means of a Dola Jantram. Kharpara is also similarly purified.

अथ सस्यकस्य मारणम् :

लकुचद्रावगन्धाश्मटंकणेन समन्वितम् ।
निरुध्य मूषिकामध्ये म्रियते कौक्कुटैः पुटैः ॥ *

Incineration of sasyaka.

Sasyaka is incinerated, if it is mixed with the juice of lakucha, sulphur, and tankanam, confined in a crucible, and then subjected to heat by kukkuta putam * *

अथ सस्यकस्य सत्त्वपातनम् ।

प्रथमो विधिः ।

सस्यकं चूर्णितं सम्यक् पादसौभाग्यसंयुतम् ।
करञ्जतैलमध्ये तु दिनमेकं निधापयेत् ॥

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* अधः षडङ्गुलं खातं चतुर्दिक्षु च तादृशम् ।
एतं कुक्कुटनामानं पुटं विद्याद्ध भिषग्वरः ॥

* * A kukkuta putam is an act of burning in which the crucible is kept inside a pit which is six angulis in each of the dimensions, and filled with cowdung cakes.

अन्धमूषकमध्यस्थं ध्मापयेत् कोकिलाग्निना।
इन्द्रगोपोपमं यावत् सत्वं पतति शोभनम् ॥

Extraction of essence from sasyaka.

First process.

Powdered sasyaka, with one fourth its quantity of tankanam, is to be kept immersed in karanja oil for one day. It is then to be confined in a blind crucible, and heated by means of charcoal fire, until the extraction of an essence having the appearance of an indragopa (mukmali) insect.

द्वितीयो विधिः।

निम्वुद्रावाल्पटंकाभ्यां मूषामध्ये निरुध्य च।
ताम्ररूपं परिध्मातं सत्वं मुञ्चति सस्यकम् ॥

Second process.

Sasyakam discharges its essence in the form of copper, if rubbed with lime juice and a little of tankanam, confined in a crucible, and then heated

अथ द्वितीया शूलघ्नी मुद्रिका। *

सस्यसत्वं समादाय खरभूनागसत्वयुक्।
तन्मुद्रिका कृतस्पर्शा शूलघ्नी तत्क्षणाद् भवेत् ॥

Another kind of finger ring which cures colic and removes poison.

The finger ring which is made of the essence of sasyakam and the essence of strong earth worms can

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* (अवशिष्टांशं प्रथमा शूलघ्नी मुद्रिकावत्) १०६ पृष्ठं द्रष्टव्यम्।

effect an immediate cure of colic by touch only. It has also the properties possessed by the finger ring referred to in page 109.

अथ तुत्थसत्त्वस्य तथा सस्यकसत्त्वस्य मारणम् ।

प्रथमो विधिः ।

मीनाक्षिशिलाभिद्द्रावसत्त्वद्विगुणगन्धकम् ।
पिष्टं तु लेपयेत् सत्त्वं सास्यकं तुत्थजं तथा ।
मूषामध्ये च संरुध्य यत्नाद् गजपुटे पचेत् ॥
समांशेन पुनर्गन्धं दत्त्वा द्रावैश्च लोलयेत् ।
एवं सप्तपुटैः पक्वं सत्त्वं भस्मीभवेद् ध्रुवम् ॥

Incineration of the essence of tuttham and that of sasyakam.

First process.

Essence of tuttham or of sasyakam is to be coated all over with a paste made of the juices of pashana bhedi and hilamochika, rubbed with sulphur, double in quantity of the essence itself. It is then to be confined in a crucible and subjected to heat by Gaja-putam. It is again to be coated all over with a paste made of the same juices and sulphur, equal in quantity to the essence itself, and subjected to Gaja putam. Performance of the second process for seven times will result in the incineration of the essence.

द्वितीयो विधिः ।

सत्त्वस्य द्विगुणं सूतं गन्धं देयं चतुर्गुणम् ।
जम्बीराम्लेन तत्सर्वं मर्दयेत् प्रहरत्रयम् ॥

आच्छाद्य धूर्त्तपत्रैश्च रुद्ध्वा गजपुटे पचेत्।
स्वांगशीतं तु चूर्णितं मृतं भवति निश्चितम्॥

Second process.

One part of the essence, two parts of mercury, and four parts of sulphur are to be rubbed together with lime juice for nine hours, then covered with dhutura leaves, and subjected to Gaja putam. The essence, when cooled of itself, is then to be reduced to powder. This is how it is killed.

अथ तुत्थसस्यकविकारस्य शान्तिः।

जम्बीररसमादाय पिबेच्च दिवसत्रयम्।
अनेन तुत्थकः शान्तिमेति वा लाजवारिणा॥

How to remedy the evil effects of impure tutthaka and sasyaka.

The evil effects followed by an improper use of tutthaka and sasyaka can be counteracted by the taking of lime juice for three days. The same result is obtained by the drinking of water in which fried paddy (not rice) is kept immersed for some time.

अथ चपलः। *

यत्र जातौ नागवंगौ चपलस्तत्र जायते।
गौरः श्वेतोऽरुणः कृष्णश्चपलस्तु चतुर्विधः॥

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* चपलस्तु दुर्लभोऽधुना। नागवङ्गयोरुपधातुरेवायं प्रतीयते। ग्रन्थकारस्य प्रबला चेष्टापि तं लब्धुं न शक्तवती।

हेमाभश्चैव ताराभो विशेषाद् रसबन्धकौ ।
शेषस्तु मध्यो लाक्षावच्छीघ्रद्रावौतु निस्फलौ ॥
वङ्गवद् द्रवते वह्नौ चपलस्तेन कीर्त्तितः ।
चपलः स्फटिकच्छायः षड़स्रः स्निग्धको गुरुः ॥
चपलो लेखनः स्निग्धो देहलौहकरो मतः ।
रसराजसहायः स्यात् तिक्तोष्णोमधुरस्तथा ।
त्रिदोषघ्नोऽतिवृष्यश्च रसवंधविधायकः ॥
गुल्मामशूलशोषेषु प्रमेहेषु ज्वरेषु च ।
प्रदरेषु प्रयोक्तव्यश्चपलस्त्वमृतोपमः ॥

Chapala. *

Chapala is obtained in mines from which lead and tin are procured. It is of four different kinds, viz., gold coloured, white, red, and black. The first two are especially suitable for solidification of mercury. The third and the fourth melt quickly like lac and are useless. Chapala (meaning subtle) is so called because it melts over fire as quickly as tin. Chapala has the appearance of quartz. It has six faces ; it is soothing and heavy.

Chapala is a curer of obesity ; it is soothing and has the property of making the body as hard as steel. It is a helper of mercury ; it is bitter, strong, and sweet in taste. It is a remover of an abnormal excess of the three doshas ; is a great nutritive, and has the

* It appears to be an ore containing lead or tin. It is now-a-days very rare ; and the author has not yet been able to procure it.

property of solidifying mercury. This nectar-like substance may be used in gulma, mucus, colic, consumption, gonorrhoea, fever, leucorrhoea, and menorrhagia.

चपलस्य शोधनम् ।

जम्वीरककोंटकश्रृङ्गवेरैर्विभावनाभिश्चपलस्य शुद्धिः ।

Purification of Chapala.

Chapala is purified, if subjected to bhavana with the juices of lime fruit, karkotaka, and ginger.

चपलस्य सत्त्वपातनम् ।

शैलं हि चूर्णयित्वाऽथ धान्याम्लोपविषैर्विषैः ।
पिण्डं वद्ध्वा तु विधिवत् पातयेच्चपलं भिषक् ॥

Extraction of essence from Chapala.

The ore of chapala is to be powdered, rubbed with kanji, poisons, and semi-poisons, and made into a lump from which essence is to be extracted (by means of a Patala kosthika or Patala Jantram).

अथ नागसम्भवश्चपलः ।

त्रिंशत्पलमितं नागं भानुदुग्धेन मर्दितम् ।
यत्नतः पुटयेत् तावद् यावत् कर्षावशेषितम् ॥
न तत् पुटसहस्रेण क्षयमायाति सर्वथा ।
चपलोऽयं समादिष्टो वार्त्तिकैर्नागसंभवः ॥

इत्थं हि चपलः कार्य्यो वङ्गस्यापि न संशयः ।
तत्स्पृष्टहस्तसंस्पृष्टः केवलो वध्यते रसः ।
स रसो धातुवादेषु शंस्यते न रसायणे ॥

Chapala produced from lead and tin.

One hundred and twenty tolas of lead are to be rubbed with the milk of arka, and subjected to heat by putam, until the quantity of the lead is reduced to one tola only. It will no longer undergo any diminution in quantity, even if it be subjected to putam for one thousand times. This substance is called chapala produced from lead. Such a chapala may also be produced from tin in a similar manner. Mercury is at once solidified, if grasped within the palm of a hand, previously smeared with the chapala produced from lead or tin. Mercury, so solidified, is commendable for alchemical purposes, but not for medical purposes.

अथ रसकः (खर्परः) ।

रसकः खर्परो ज्ञेयः खर्परतुत्थकश्च सः ।
यशोदस्योपधातुर्हि यशोदसदृशो गुणैः ॥
रसको द्विविधः प्रोक्तो दुर्दरः * कारवेल्लकः ।
सदलो दुर्दरः प्रोक्तो निर्दलः कारवेल्लकः ॥
सत्त्वपाते शुभः पूर्व्वो द्वितीयश्चौषधादिषु ।
मृत्पाषाणगुडैस्तुल्यस्त्रिविधो रसको मतः ।

* दुर्दुरः इति पाठान्तरम् ।

पीतस्तु मृत्तिकाकारः श्रेष्ठः स्यात् स तु पत्रलः।
गुड़ाभो मध्यमः स्थूलः पाषाणाभो कनिष्ठकः॥
रसकः सर्व्वमेहघ्नः कफपित्तविनाशनः।
नेत्ररोगक्षयघ्नश्च लौहपारदरञ्जनः॥
रसश्च रसकश्चोभौ येनाग्निसहनौ कृतौ।
देहलौहमयी सिद्धिर्दासी तस्य न संशयः॥

Rasaka or kharpara (calamine).

Rasaka is of two kinds, viz, "Durdara" * and "karabella." The variety which has got layers is called the "Durdara" and the one which has got no layers is called the "karabella." The first variety is to be preferred for the purpose of extraction of essence, whereas the second one is more suitable for purpose of being used in medicines. Rasaka resembles in appearance three different things, viz, mud, stone, and molasses. The first is yellow in colour and is full of layers. Both the second and the third are thick and without layers. In quality, the second is inferior to the first, and the third is inferior to the second. Rasaka cures all sorts of venereal diseases and eye-diseases ; it pacifies an abnormal excess of the three doshas, and is a dyer of iron and mercury. The art of transforming the body into steel becomes a hand maid, as it were, to the person who can make mercury and rasaka stand fire.

* "Dardura," according to another version.

अग्निसहने रसकस्य अक्षमता ।

अस्थिरोऽग्निगतोऽत्यर्थं दह्यते क्षणमात्रतः ।
तस्य स्थैर्य्यकरं द्रव्यं दुर्लभं धरणीतले ॥

Inability of Rasaka to stand fire.

Rasaka cannot stand fire. It is so combustible that it burns on a slight heat being applied to it. There are a few things in this world which can make rasaka stand fire.

रसकस्याग्निसहतासम्पादनम् ।

प्रथमो विधिः ।

शुद्धकिंचुलजैः सत्वैस्तद्रसैर्वापि मर्द्दितः ।
स्थैर्य्यं भजेत् स रसको नान्यैः कोटिशतैरपि ॥

How rasaka may be made to stand fire.

First process.

Rasaka can be made to stand fire, if it is rubbed with the essence of earth-worm or with the liquid expressed from it.

द्वितीयो विधिः ।

कण्यकादलमादाय तद्दलं कारयेद् द्विधा ।
एकस्मिन् तद्दले धृत्वा खर्परं माषवत् कृतम् ॥
द्वितीयमपरं दत्वोपरिष्टात् कण्यकादलम् ।
निरुध्य च दले तत्तु खरमूत्रस्य मध्यगे ॥

क्रियते स्वेदनं तावत् यावन्मूत्रक्षयो भवेत् ।
एवं दिनत्रयं रोधः क्रियते तद्दलस्य च ॥
त्रिवारं क्रियतेऽप्येवं तद्दले खर्परस्य च ।
अक्लेशं जायते नूनमग्निस्थायी च खर्परः ॥
यदि वह्नौ विनिक्षिप्तः खर्परो धूमवान् भवेत् ।
तदा पुनर्द्दले देयः खर्परो दृढ़तां व्रजेत् ॥
क्षारिकालवणे पश्चात् खर्परः पाच्यते पुनः ।
दिनद्वयं भवेदेवं पातः खर्परकस्य च ॥
पुनरग्नौ परीक्षेत खर्परं दृढ़मुत्तमम् ।
यदि धूमो विदृश्यते खर्परं पाच्यतां पुनः ॥
पुनश्च दीयतां तत्र भूनागतनुजद्रवः ।
भावयेत् पुटयेत् सप्तभावनाभिश्च खर्परम् ॥

Second process.

Kharpara is to be broken into pieces like gram, and kept inside a blade of kanya split up into two, immersed in ass's urine, and boiled until the urine evaporates altogether. This process is to be continued for three days, after which the blade is to be replaced by a new one, which is also to be boiled in the same way for 3 days. This process is to be performed thrice. This is how kharpara is enabled to stand fire without much difficulty. If the kharpara still emits smoke when placed on fire, it is again to be boiled in the aforesaid way as long as necessary. The

kharpara is next to be boiled in a solution of kshari salt for 2 days which will result in its incineration. It is again to be put to the test of being placed on fire. If it still emits smoke, it is again to be boiled in the fore-going manner, then subjected to bhavana for seven times with the liquid expressed from earth worms, and heated by putam after each act of bhavana.

अथ रसकस्य शोधनम् ।

प्रथमो विधिः ।

कटुकालावुनिर्य्यास आलोड्य रसकं पचेत् ।
शोधितं दोषनिर्मुक्तं पीतवर्णं तु जायते ॥

Purification of kharpara.

First process.

Rasaka assumes a yellow appearance, and is purified, if it is saturated with the juice of bitter alabu and then heated.

द्वितीयो विधिः ।

खर्परः परिसंतप्तः सप्तवारं निमज्जितः ।
वीजपूररसस्यान्तर्निर्मलत्वं समश्नुते ॥

Second process.

Kharpara is purified, if it is heated for seven times, and is immersed in the juice of bijapura, after each act of heating.

तृतीयो विधिः।

नृमूत्रे वाऽश्वमूत्रे वा तक्रे वा काञ्जिकेऽथवा।
प्रताप्य मज्जितं सम्यक् खर्परं परिशुध्यति॥

Third process.

Kharpara is purified, if it is heated and immersed in man's urine, or horse's urine, or whoy, or kanji.

चतुर्थो विधिः।

नरमूत्रे च गोमूत्रे सप्ताहं रसकं पचेत्।
दोलायन्त्रेण शुद्धिः स्यात् ततः कार्य्येषु योजयेत्॥

Fourth process.

Rasaka is purified, if it is boiled in man's urine or cow's urine for a week by means of a Dola Jantram.

पञ्चमो विधिः।

पुष्पाणां रक्तपीतानां रसैः पिष्ट्वा च भावयेत्।
नरमूत्रैश्च गोमूत्रैर्यवाम्लैश्च ससैन्धवैः॥

Fifth process.

Rasaka is purified, if it is rubbed with the juices of red and yellow flowers and then subjected to bhavana with cow's urine, or man's urine, or aranala, or saubir amla, each mixed with rock salt.

अथ खर्परस्य मारणम्।

प्रथमो विधिः।

खर्परं पारदेनैव यामाष्टकं विपाचयेत्।
वालुकायन्त्रमध्यस्थं शोभनं भस्म जायते॥

First process.

Kharpara is reduced to fine ashes, if rubbed with mercury and subjected to heat for 8 hours, by means of a Baluka Jantram.

द्वितीयो विधिः ।

खर्परं लौहपात्रस्थं चुल्ल्यां दत्वा विपाचयेत् ।
गलिते सैन्धवं चूर्णं दत्वा दत्वा विमर्दयेत् ।
भूयः पलाशदण्डेन यावद् भस्मीभवेत् तु तत् ॥

Second process.

Kharpara is incinerated, if it is placed over fire in an iron pot, and when smelted, mixed with saindhava salt being put upon it little by little, and turned constantly by means of a rod made of Palasha wood.

तृतीयो विधिः ।

खर्परं पिण्डकं कृत्वा लवणान्तर्गतं पचेत् ।
जायते शोभनं भस्म सर्वरोगापहं स्मृतम् ॥

Third process.

Kharpara is incinerated, and as such, cures all sorts of diseases, if subjected to heat by means of a Lavana Jantram.

अथ रसकस्य सत्त्वपातनम् ।

प्रथमो विधिः ।

हरिद्रात्रिफलारालसिन्धुधूमैः सटंकणैः ।
सारुष्करैश्च पादांशैः साम्लैः संमर्द्य खर्परम् ॥ *

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* आरुष्करो भल्लातकः ।

लिप्तं वृन्ताकमूषायां शोषयित्वा निरुध्य च।
मूषां मूषोपरि न्यस्य खर्परं प्रधमेत् ततः॥
खर्परे प्रद्रुते ज्वाला भवेन्नीला सिता यदि।
तदा संदंशतो मूषां धृत्वा कृत्वा त्वधोमुखीम्।
शनैरास्फालयेद्भूमौ यथा नालं न भज्यते॥
वङ्गाभं पतितं सत्त्वं समादाय नियोजयेत्।
एवं द्वित्रिचतुर्वारैः सर्वं सत्त्वं विनिःसरेत्॥
यशोदमेव सत्त्वं तद् यशोदं भिषजां मतम्।
पूर्वोक्तौषधियोगात्तु यशोदादधिकं गुणैः॥

Extraction of essence from Rasaka (calamine).
First process.

Kharpara is to be rubbed with one fourth its quantity of haridra, triphala, rala, saindhava, dhuma (soot), tankanam, bhallataka, and a sufficient quantity of the amlas (sour vegetable juices), and made into a paste with which is to be painted the inner surface of a crucible, called "Brintaka-musha" (see page 291 vol. I). When dried, the crucible is to be covered with a lid placed lightly on the mouth. The crucible is to be heated until the rasaka gets smelted, and emits, through a hole in the crucible, a smoke of blue white colour. The inner crucible is then to be taken out and turned upside down on the ground, so carefully as not to le it break. All the essence, which has the appearance of tin, will thus be obtained by heating the crucible for two or three times. The essence, thus obtained, is no other than jasoda (zinc), but the drugs,

(*i*, *e*, haridra, etc.) used in the extraction of the essence, imparts to it a quality which makes it much superior to ordinary zinc in point of medicinal properties.

द्वितीयो विधिः ।

साभयाजतुभूनागनिशाधूमजटंकणम् ।
मूकमूषागतं ध्मातं सत्त्वं मुञ्चति खर्परम् ॥

Second process.

Rasaka discharges its essence, if rubbed with haritaki, laksha, earth worm, haridra, soot, and tankanam, and heated by means of a muka musha.*

तृतीयो विधिः ।

लाक्षागुड़ासुरीपथ्याहरिद्रासर्जटंकणैः ।
सम्यक् संचूर्ण्य तत् पक्वं गोदुग्धेन घृतेन च ॥
वृन्ताकमूषिकामध्ये निरुध्य गुटिकाकृति ।
ध्मात्वा ध्मात्वा समाकृष्य पातयित्वा शिलानले ।
सत्त्वं वङ्गाकृति ग्राह्यं रसकस्य मनोहरम् ॥
यद्वा जलयुतां स्थालीं निखनेत् कोष्ठिकोदरे ।
सच्छिद्रं तन्मुखे मल्लं तन्मुखेऽधमुखीं क्षिपेत् ॥
मूषोपरि शिखित्रांश्च प्रक्षिप्य प्रधमेद् दृढ़म् ।
पतितं स्थालिकानीरे सत्त्वमादाय योजयेत् ॥ †

* Muka musha (dumb crucible) and andha musha (blind crucible) refer to the same kind of crucible—a crucible not provided with any passage for the entrance of air into it.

* एतद्धि पातालाख्यं यन्त्रम् । प्रथम खण्डे १७६ पृष्ठे प्रदत्तास्य वर्णना संशोध्यतेऽधुना--

Third process.

Rasaka is to be rubbed with the powders of laksha, gurh (molasses), white mustard, rala, and tankanam, roasted with cow's milk and ghee, and made into a ball. It, is then to be confined in a Brintaka musha and subjected to heat in the manner explained in the first process.

Essence from the ball may also be extracted in the following manner :—Place an earthen vessel full of water, inside a pit cut into the ground, and put an earthen basin full of holes upon the mouth of the vessel. The crucible containing the ball referred to above is now to be placed upside down upon the earthen basin, and charcoal fire to be placed all round the crucible. This will result in the essence of rasaka falling into the water in the vessel. *

हस्तप्रमाणं निम्नं च गर्त्तं कृत्वा प्रयत्नतः ।
तस्मिन् भाण्डञ्च संस्थाप्य तथान्यत् पात्रमाहरेत् ॥
तस्मिन्नौषधवर्गञ्च दत्त्वान्यञ्च शरावकम् ।
मुखे संस्थाप्य छिद्राणि कृत्वा चैव शरावके ॥
सशरावमधोमुखं गर्त्तस्थे भाजने न्यसेत् ।
संधिलेपं ततः कृत्वा गर्त्तमापूर्य्य मृत्स्नया ॥
पश्चादग्निं च प्रज्वाल्य स्वांगं शीतं समुद्धरेत् ।
उपरिस्थं तु यत् पात्रं युक्त्या तच्च समाहरेत् ॥
निम्नस्थाद् भाजनात् सत्त्वं तैलं वार्कं समुद्धरेत् ।
पातालाख्यमिदं यन्त्रं भाषितं शम्भुना स्वयम् ॥

* This refers to what is called Patala Jantram, (see page 280, vol I), a correct description of which is given here :—

Patala Jantram.

In a pit in the ground, one cubit deep, place a vessel. Another vessel containing prescribed materials and having its mouth tightly

सतालकरसकसत्त्वभस्म । *

तत् सत्त्वं तालकोपेतं प्रक्षिप्य खलु खर्परे ।
मर्दयेल्लोहदण्डेन भस्मीभवति निश्चितम् ॥
तद्भस्म मृतकान्तेन समेन सह योजयेत् ।
अष्टगुञ्जामितं चूर्णं त्रिफलाक्वाथसंयुतम् ॥
कान्तपात्रस्थितं रात्रौ तिलजप्रतिवापकम् ।
निषेवितं निहन्त्याशु मधुमेहमपि ध्रुवम् ॥
पित्तं क्षयं च पाण्डुं च श्वयथुं गुल्ममेव च ।
रक्तगुल्मं च नारीणां प्रदरं सोमरोगकम् ॥
योनिरोगानशेषांश्च विषमांश्च ज्वरानपि ।
रजःशूलं च नारीणां कासं श्वासं च हिक्किकाम् ॥

Incineration of the essence of rasaka.

Essence of rasaka with haritala is to be placed over fire upon an earthen pot or an iron cauldron, with an equal quantity of purified haritalam being put upon it, little by little, and turned all the while by means of an iron rod, until the whole thing is reduced to ashes. This powder is to be mixed with an equal quantity of incinerated kanta iron and is to be applied in doses

covered with a basin, full of holes, is to be placed upside down upon the mouth of the first vessel. The joints are to be closed and the pit covered with mud. The apparatus is then to be heated by means of charcoal fire being placed all round the upper vessel, when cooled of itself, the essence, oil, or tincture, as the case may be, is to be taken out from inside the lower vessel.

* अग्रे यशोदस्य भस्मीकरणविधिर्द्रष्टव्यः ।

of 8 ractis a day with the accompaniment of the decoction of triphala, kept overnight in a kanta iron pot, with three or four drops of oil extracted from tila, (sesamus) put upon it. It speedily cures the following diseases :—spermatorrhoea, pittam (an excess of the animal heat), consumption, anemia, dropsy, gulma, racta-gulma of women, leucorrhoea, menorrhagia, diabetes, all sorts of vaginal diseases, malaria, kala-azar, pain at the time of menstruation, bronchitis, asthma, and hiccough.

रसकेन रसादीनां रञ्जनम् ।

नरमूत्रे स्थितो मासं रसको रञ्जयेद् ध्रुवम् ।
शुद्धताम्रं रसं तारं शुद्धस्वर्णसमप्रभम् ॥

Dyeing of mercury, etc. by rasaka.

Rasaka, kept immersed in man's urine for one month, acquires the property of investing pure copper, mercury, and silver with the colour of pure gold.

द्वितीयोऽध्यायः ।

अथ गन्धकः ।

गन्धाश्मा गन्धको गन्धो गन्धी च गन्धिको वलिः ।
सौगन्धिकः सुगन्धिकः पामघ्नो गन्धमोदनः ॥
शुल्वारिः पूतगन्धश्च कुष्ठारिर्दिव्यगन्धकः ।
सुगन्धी रसगन्धश्च कीटघ्नः क्रूरगन्धकः ॥
नवनीतस्तथा प्रोक्तो गन्धेशः शरभूमिजः ।
सेवितो वलिना सोऽयं प्रभूतवलहेतवे ।
तस्माद्व वलिवसेत्युक्तो गौरीरजो मनोहरः ॥

गन्धकस्य प्रकाराः ।

चतुर्धा गन्धको ज्ञेयो वर्णैः श्वेतादिभिः खलु ।
श्वेतोऽत्र खटिकाकारो लेपनाल्लोहमारणः ॥
तथा चामलसारः स्यात् यो भवेत् पीतवर्णवान् ।
शुकपिच्छः स एव स्यात् श्रेष्ठो रसे रसायने ॥
रक्तश्च शुकतुण्डाख्यो धातुवादविधौ वरः ।
दुर्लभः कृष्णवर्णश्च स जरामृत्युनाशनः ॥

CHAPTER II.

Gandhaka (Sulphur).

Variety of sulphur.

Gandhaka is of four different kinds, according to its colour. The white variety has the appearance of khati or chalk ; it is capable of incinerating a metal by besmearing the latter (with white sulphur rubbed

with a vegetable acid, and then heating it by a putam). The yellow variety is called the "amala-sara." It has the colour of the beak of a Suka (parrot) ; it is best suited to the requirements of mercury and of medicines prepared with a view to cure physical decay and senility. The red variety is best suited to the requirements of alchemy. The black variety is very rare ; it is capable of overcoming senility and death.

गन्धकस्य गुणाः ।

गन्धाश्माऽति रसायनः सुमधुरः पाके कटूष्णो मतः
कण्डूकुष्ठविसर्पदद्रुदलनो दीप्तानलः पाचनः ।
आमोन्मोचनशोषणो विषहरः सूतेन्द्रवीर्य्यप्रदः
स्वर्णादेरधिको बलात् क्रिमिहरः सत्त्वात्मकः
सूतजित् ॥

Properties of sulphur.

Sulphur arrests and cures physical decay and senility ; it is sweet in taste, but turns pungent and hot, when digested in the stomach. It cures itches, leprosy, erysipelas, and ring worm. It increases appetite and helps digestion of food. It destroys mucus and eliminates it from the system. It does away with poison, and imparts potency to mercury. It destroys worms, and is a greater tonic than even gold.

गन्धकशोधनस्यावश्यकता ।

गन्धे मलद्वयं दृष्टं शिलाचूर्णं विषं तथा ।
शोधितव्यस्ततो यत्नादभिज्ञेन यथाविधि ॥

अशुद्धगन्धको हन्याज्जीवनमप्यपथ्यतः ॥
अशुद्धगन्धः कुरुते च कुष्ठं तापं भ्रमं पित्तरुजां
तथैव ।
रूपं सुखं वीर्य्यवलं निहन्ति तस्माद्धि शुद्धो
विनियोजनीयः ।

Sulphur is to bc purified.

Sulphur contains two foreign matters, viz, particles of stone and poison. It is therefore to be purified very carefully. Impure sulphur gives rise to leprosy, inflammation, giddiness, diseases due to an excess of pittam, and loss of beauty, happiness, strength, and semen.

अथ गन्धकस्य शोधनम् ।

प्रथमो विधिः ।

पयःस्विन्नो घटीमात्रं वारिधौतो हि गन्धकः ।
गव्याजविद्रुतो वस्त्रात् गालितः शुद्धिमृच्छति ॥
एवं संशोधितः सोऽयं पाषाणानम्वरे त्यजेत् ।
घृते विषं तुषाकारं स्वयं पिण्डत्वमेति च ॥
इति शुद्धो हि गन्धाश्मा नापथ्यैर्विकृतिं व्रजेत् ।
अपथ्यादन्यथा हन्यात् पीतं हालाहलं यथा ॥

Purification of Gandhaka.
First process.

Gandhaka is to be smelted with cow's ghee, and immediately filtered through a piece of cloth into a

pot, filled with milk, with which it is to be boiled for 24 minutes, and then washed with water. Gandhaka is thus purified and turns into lumps, leaving the particles of stone on the piece of cloth, the poison in the shape of husks being mixed with the ghee which separates itself from the sulphur. One who takes gandhaka, thus purified, need not be afraid of any reactionary after-effects, even though one takes unwholesome food at the time of taking the sulphur. Gandhaka, not properly purified, proves as harmful as a strong poison, especially if a bad diet is taken.

द्वितीयो विधिः ।

गन्धकं द्रावितं वस्त्रपूतं भृङ्गरसे क्षिपेत् ।
चूर्णयित्वा ततस्तञ्च स्वेदयेत् तद्रसैः क्षणम् ॥
द्रावितं पुनरेनं तु पुनर्भृङ्गरसे क्षिपेत् ।
एवं विशोधितं गन्धं सर्वकार्य्ये नियोजयेत् ॥

Second process.

Gandhaka is to be smelted and thrown, through a piece of cloth, into the juice of bhringaraja. It is then to be powdered and boiled with the same juice for some time. It is next to be smelted again, and thrown into the juice of bhringaraja. Gandhaka, thus purified, may be used for all purposes.

तृतीयो विधिः ।

आदौ गन्धकटंकादि क्षालयेज् जम्भवारिणा ।
इष्टसंलग्नधूल्यादिमलं तेन विशीर्यते ॥

साज्यभाण्डे पयः क्षिप्त्वा वस्त्रेणाच्छाद्य तन्मुखम् ।
तत्पृष्ठे गन्धकं क्षिप्त्वा शरावेण पिधापयेत् ॥
भाण्डं निःक्षिप्य भूम्यन्तरूर्द्ध्वं देयं पुटं लघु ।
ततः क्षीरे द्रुतं गन्धं शुद्धं योगेषु योजयेत् ।
अथवा साज्यकाञ्जिकभाण्डे चैवं विशुध्यति ॥

Third process.

Gandhaka, tankanam, etc. are, first of all, to be washed with lime juice, which removes the dirt attached to their surfaces.

Cover the mouth of an earthen vessel by means of a piece of cloth tightly bound, and put sulphur upon this cloth, covering it with an earthen basin, the joint being closed with mud, etc., The vessel is then to be kept inside a pit made in the ground in such a way as to keep the brim of the vessel on the level of the surface of the earth, the hollow round the vessel being filled in with loose earth. A fire with sixteen pieces of cowdung cakes is now to be made all round the earthen basin. Sulphur, smelted by the fire and making its way through the cloth, will fall into the milk mixed with clarified butter, contained in the vessel, and will thus be purified.

चतुर्थो विधिः ।

पादांशटंकणोपेतं गन्धकमतियत्नतः ।
मर्द्दयेन् मातुलुङ्गोत्थै रुरुतैलेन भावयेत् ॥

चूर्णं कृत्वा प्रयत्नेन शनैर्गन्धं खरातपे।
इत्थं विशोधितं गन्धं सर्वयोगेषु योजयेत्॥

Fourth process.

Gandhaka, with one fourth its quantity of tankanam, is to be rubbed with the juice of matulungu, then powdered 'very carefully, and subjected to bhavana with castor oil in the intense heat of the sun. Thus purified, Gandhaka becomes fit for use in every way.

अथ गन्धकसेवनविधिः।

(१)

इत्थं विशुद्धस्त्रिफलाज्यभृङ्ग-
मध्वन्वितः शाणमितो हि लीढः।
गृध्राक्षितुल्यं कुरुतेऽक्षियुग्मं
करोति रोगोज्झितदीर्घमायुः॥

How to take gandhaka.

(1)

Gandhaka, purified in the way described above, if taken every morning, in doses of one fourth of a tola a day, with triphala, ghee, juice of bhringaraja, and honey gives the man who takes it a long life, being free from diseases, and an eye sight as clear and strong as that of a vulture.

(२)

घृताक्ते लौहपात्रे तु विद्रुतं शुद्धगन्धकम्।
घृताक्तदर्व्विकाक्षिप्तं द्विनिष्कप्रमितं भजेत्।
हन्ति क्षयमुखान् रोगान् कुष्ठरोगं विशेषतः॥

(2)

Sulphur, duly purified, and smelted in an iron pot, smeared with ghee, and taken out of the pot by means of an iron ladle smeared with ghee, may be taken for the cure of pthisis and other diseases, and especially of leprosy.

(३)

मोचाफलेन त्वग्दोषं चित्रकेन वलक्षयम्।
आटरूषकषायेन क्षयकासान् जयेद्‌ भृशम्॥
मन्दानलं संहरति त्रिफलाक्काथसंयुतः।
ऊर्द्ध्वगान् सकलान् रोगान् हन्ति शीघ्रं
सुगन्धकः॥

(3)

Gandhaka cures skin diseases, if taken with ripe banana fruit. It cures loss of strength, if taken with powdered chitraka root. It also cures loss of appetite, if taken with a decoction of triphala. All sorts of diseases pertaining to the upper part of the body are cured very soon by gandhaka, well prepared and taken regularly.

(४)

सुगन्धको निष्कमितस्तु दुग्धैः
सेव्यो हि मासं बलवीर्य्यवृद्धै च।
वर्षार्द्ध योगान् निखिलार्त्तिनाशं
दीर्घायुषं नेत्रसुखं ददाति॥

(4)

Purified sulphur increases strength and semen, if taken for a month in doses of one fourth of a tola per day with milk. Taken for six months at a stretch, it cures all sorts of diseases, and increases longevity and eye-sight.

(५)

चूर्णीकृत्य पलानि पञ्च नितरां गन्धाश्मनो यत्नतः।
तच्चूर्णं त्रिगुणेन मार्कवरसैश्छायाविशुष्कं कृतम्॥
पश्चाच्च चूर्णं च तस्मिन्नभयमधुघृतं प्रत्येकमेषां पलम्।
वृद्धो यौवनमेति मासयुगलं खादेन्नरो प्रत्यहम्॥

(5)

Sulphur, five palams in quantity, is to be powdered, saturated with three times its weight of the juice of bhringaraja, and dried in shade (without being exposed to the heat of fire or sun or electricity). To this is to be added haritaki, honey, and ghee, one palam each. The total quantity, thus prepared, is to be taken in the course of two months (in doses of $\frac{1}{18}$th part of the whole thing per day). This procedure may result in an old man being restored to youth.

(६)

सद्गन्धश्च विचूर्णितं पिवति यस्तैलेन कर्षोन्मितम् ।
अभ्यंगोष्णजलावसेचनरतः काले यथा प्रत्यहम् ॥
सप्ताहात् त्रितयान् निहन्ति विषमपापादिसर्वान्
रुजो ।
नित्याभ्यासवशाद् विनष्टसकलक्लेशोपतापः पुमान् ॥

(6)

A man is freed in three weeks from carbuncle, piles, etc. if he takes sulphur, well prepared, in doses of one fourth of a tola, rubbed with a little of tila oil, and if he takes bath regularly every day in tepid water. One who is habituated to take sulphur in the above way is freed from all physical ailments and diseases.

(७)

यो ना खादति वा सुचूर्णितमिदं गन्धाश्म कृष्णासमम् ।
पथ्यातुल्यमपि प्रपूजितगुरुर्भूतेशपूजारतः ॥
आहारादिषु यन्त्रणादिरहितः स्यात् पुष्टिवीर्य्याधिकः ।
प्रोत्फुल्लाम्वुजनेत्रयुग्मविकसच्चामीकराभासुरः ॥

(7)

One who takes powdered gandhaka, with an equal quantity of pippali and haritaki, becomes strong and healthy, with a very clear and keen eye-sight.

(८)

शुद्धो वलिर्गोपयसा विभाव्यस्ततश्चतुर्जात
गुड़ूचिकाभिः ।
पथ्याक्षधात्रीकटुभृङ्गराजैर्भाव्योऽष्टवारं
पृथगार्द्रकेण ॥
सिद्धे सितां योजय तुल्यभागां रसायनं गन्धक-
संज्ञितं स्यात् ।
धातुक्षयं मेहगणाग्निमान्द्यं शूलं तथा कोष्ठगतांश्च
रोगान् ॥
कुष्ठान्यथाष्टादशरोगसंख्यान् निवारयत्येव च
राजयोग्यम् ।
कर्षोन्मिते सेवित एति मर्त्त्यो वीर्य्यं च पुष्टिं
बलवाक्प्रदीप्तिम् ॥

The Rasayana Gandhaka.

(8)

Purified sulphur is to be subjected to bhavana with cow's milk, and the decoction or juice of each of the following separately :—chaturjata, guduchi, haritaki, bibhitaki, amalaki, trikatu, bhringaraja, and ginger. When this is done, the product is to be mixed with an equal quantity of sugar. The medicine, thus prepared, is called the "Rasayana gandhaka." If taken in doses of one tola a day, it prevents waste of the dhatus, cures all sorts of spermatorrhoea and gonorrhoea, loss of appetite, colic, diseases

pertaining to the stomach, and the eighteen different kinds of leprosy. It increases semen, strength, and power of speech.

(६)

गन्धकस्तुल्यमरिचः षड़्गुणात्रिफलान्वितः ।
घृष्टः शम्पाकमूलेन पीतश्चाखिलकुष्ठहा ॥
तन्मूलसलिले पिष्टं लेपयेत् प्रत्यहं तनौ ।
दृष्टप्रत्यययोगोऽयं सर्व्वत्र प्रतिवीर्य्यवान् ॥

(9)

All sorts of leprosy are cured, if gandhaka is taken with an equal quantity of maricha and six times its weight of triphala, all rubbed with the juice of the root of aragbadha, and if at the same time gandhaka rubbed with the very same juice is applied externally.

अथ गन्धकतैलम् ।

(१)

कलांशव्योषसंयुक्तं गन्धकं श्लक्ष्णचूर्णितम् ।
अरत्निमात्रवस्त्रे तद् विप्रकीर्य्य विवेष्ट्य च ॥
सूत्रेण वेष्टयित्वाऽथ यामं तैले निमज्जयेत् ।
धृत्वा संदंशतो वर्त्तिमध्यं प्रज्ज्वालयेच्च तम् ॥
द्रुतो निपतितो गन्धो विन्दुशः काचभाजने ।
तां द्रुतिं प्रक्षिपेत् पत्रे नागवल्ल्यास्त्रिविन्दुकान् ॥
वल्लेन प्रमितं स्वच्छं सूतेन्द्रं च विमर्दयेत् ।
अङ्गुल्याऽथ सपत्रां तां द्रुतिं सूतं च भक्षयेत् ॥

करोति दीपनं तीव्रं क्षयं पाण्डुं च नाशयेत् ।
कासं श्वासं च शूलार्त्तिं ग्रहणीमतिदुर्धराम् ।
आमं विनाशयत्याशु लघुत्वं प्रकरोति च ॥

Sulphur oil.

(1)

Gandhaka, purified and very finely powdered, with one fourth its quantity of trikatu, is to be strewn over a piece of cloth, one aratni in length and in breadth. This cloth is then to be rolled up in the form of a candle entwined with cotton thread, and immersed in oil for three hours. The candle is then to be caught hold of by means of a forcep and one of its extremities to be set fire to over a glass pot on which is to fall smelted sulphur, drop by drop. Three drops of this sulphur oil, thrown on a pan (betel) leaf, is to be rubbed by means of the tip of a finger with mercury, three ractis in weight. The pan leaf with the sulphur oil and the mercury is then to be swallowed. Taken regularly, this medicine cures, in a short time, cough, asthma, colic, chronic diarrhoea, and mucus. It makes the system very light.

(२)

अर्कक्षीरैः स्नुहीक्षीरैः वस्त्रं लेप्यं तु सप्तधा ।
गन्धकं नवनीतेन पिष्टा वस्त्रं विलेपयेत् ॥
तद्वर्त्तिर्ज्वलिता भाण्डे धृता धार्य्याप्यधोमुखी ।
तैलं पतत्यधोभाण्डे ग्राह्यं योगेषु योजयेत् ॥

(2)

A piece of cloth is to be soaked for seven times with the milk of arka and snuhi. The cloth is next to be soaked with gandhaka rubbed with butter, made into a candle, and dried. This candle is to be held tight by means of a forcep over a pot, the lower extremity being set fire to in such a way as to let the smelted sulphur fall, drop by drop, into the pot. This liquid of sulphur may be used for all purposes.

(३)

आवर्त्तमाने पयसि दद्याद् गन्धकजं रजः ।
तज्जातदधिजं सर्पिः गन्धतैलं निगद्यते ॥
गन्धतैलं गलत्कुष्ठं हन्ति लेपाच्च भक्षणात् ।
अनेन पिष्टिका कार्य्या रसेन्द्रस्योक्तकर्मसु ॥

(3)

Powdered gandhaka is to be mixed with milk, when it is boiled. This milk is to be converted into curd. Clarified butter, prepared out of this curd, is called sulphur oil. It cures cancer leprosy by internal as well as external application.

गन्धकसेवने अपथ्यम् ।

(१)

क्षाराम्लतैलसन्धानं विदाहि द्विदलं तथा ।
शुद्धगन्धकसेवायां त्यजेदति प्रयत्नतः ॥

Dietary.

(1)

One who takes purified gandhaka should avoid the following :—kshara, amla, oil, fermented liquids, fried and roasted food stuff, and pulses of all kinds.

(२)

लवणाम्लानि शाकानि द्विदलानि तथैव च।
स्त्रियश्चारोहनं याने गन्धसेवी विवर्जयेत्॥

(2)

One who takes gandhaka should avoid the following :--salt, sour things, leaves of vegetables, pulses, intercourse with women, and travels, especially on horse back and in carriages.

गन्धकस्य गन्धदूरीकरणम्।

प्रथमो विधिः।

विचूर्णं गन्धकं क्षीरे घनीभावं व्रजेद् यथा।
सूर्य्यावर्त्तरसं तत्र पुनर्दत्वा पचेच्छनैः॥
पश्चाच्च पातयेत् प्राज्ञो जले त्रिफलसंभवे।
हरते गन्धको गन्धं निजं नास्तीह संशयः॥

Removal of odour from sulphur.

Powdered sulphur is to be boiled with milk until it is condensed. It is then to be boiled with the juice of suryavarta, and then again with the decoction of triphala. Thus treated, gandhaka is deprived of its odour.

द्वितीयो विधिः ।

देवदाल्यम्लपर्णी वा नागरं वाऽथ दाड़िमम् ।
मातुलुङ्गं यथालाभं द्रवमेकस्य वाहरेत् ॥
गन्धकस्य तु पादांशटंकणद्रवसंयुतम् ।
अनयोर्गन्धकं भाव्यं त्रिभिर्वारैस्ततः पुनः ॥
धत्तूरं तुलसी कृष्णा रसोनं देवदालिका ।
शिग्रूमूलं काकमाची कर्पूरं शङ्खिनीद्वयं ॥
कृष्णागुरुश्च कस्तूरी वन्ध्याकर्कोटकी समम् ।
मातुलुङ्गरसैः पिष्टा चिपेदेरण्डतैलके ॥
अनेन लौहपात्रस्थं भावयेत् पूर्व्वगन्धकम् ।
त्रिवारं चौद्रतुल्यन्तु जायते गन्धवर्जितः ॥

Second process.

Gandhaka is to be subjected to bhavana for three times with a solution of one fourth its quantity of tankanam, dissolved with water, and the juice of any one or more of the following :—devadali, amlaparni, shunthi, darima, and matulunga. The gandhaka is again to be subjected to bhavana for three times in an iron pot with a liquid prepared by rubbing together the under-mentioned articles with the juice of matulunga, and then dissolving the paste-like thing with castor oil :—dhattura, black tulashi, rasona, devadali, root of shigru, kakamachi, karpura, two kinds of shankhini (shankhapuspi and shankhodari ?), black aguru, kasturi, bandhya karkoti,—all of equal quantity.

This will render the sulphur devoid of odour, and as soft as honey.

गन्धकेन वेधनक्रिया ।

(१)

पीतश्च गन्धकः सूतो रक्तचित्ररसैर्ध्रुवम् ।
वज्रीक्षीरेण संपिष्टौ वंगस्तम्भकरौ परौ ॥

Transformation of base metals by gandhaka.

(1)

Yellow sulphur and mercury rubbed with the juice of red chitraka and milk of bajri lead to the transformation of tin into silver.

(२)

गन्धकेन हतं शुल्वं दरदेन समीकृतम् ।
मातुलुंगरसैः पिष्टं त्रिपुटैर्हन्ति सीसकम् ।
सिन्दूराभं भवेन्नागं ताम्रं भवति काञ्चनम् ॥

(2)

Copper is to be incinerated with gandhaka and mixed with an equal quantity of hingula. This is then to be rubbed with the juice of matulunga. Lead, when rubbed with this, will be reduced to ashes as red as red vermilion, by being subjected to putam for three times only.

अशुद्धगन्धकभक्षणजनितविकारस्यापनयनम् ।

विकारः संप्रजायेत गन्धकाच्चेत् तदा पिबेत् ।
गोघृतेनान्वितं क्षीरं सुखी स्यात् स च मानुषः ॥

Removal of the evil consequences of taking impure sulphur.

This can be done by taking milk with cow's ghee.

अथ गैरिकम् ।

गैरिकं रक्तधातुर्हि गिरिधातु गवेधुकम् ।
धातुः सुरङ्गधातुश्च गिरिमृद्भवमेव हि ॥
वनालक्तं गवेरुकं प्रत्यश्मा गिरिमृत् तथा ।
लोहितमृत्तिका चैव गैरेयं गिरिजं स्मृतम् ॥
गैरिकं द्विविधं प्रोक्तं पाषाणं स्वर्णगैरिकम् ।
पाषाणगैरिकं प्रोक्तं कठिनं ताम्रवर्णकम् ॥
अत्यन्तशोणितं स्निग्धं मसृणं स्वर्णगैरिकम् ।
कषायमधुरं हिमं नेत्रंच च रक्तपित्तनुत् ॥
हिक्कावमिविषघ्नं च ज्वरघ्नं पित्तनाशकम् ।
पाषाणगैरिकं चान्यत् पूर्व्वस्मादल्पकं गुणैः ॥
सुवर्णगैरिकं स्वर्णधातुः सुरक्तकं तथा ।
सन्ध्याभ्रं वभ्रुधातुश्च ज्ञेयमिति विचक्षणैः ॥

Gairikam (red ochre).

Gairikam is of two kinds, viz., pashana gairikam and swarna-gairikam. The former is hard and copper-coloured. The latter is very red, soft, smooth, sweet and astringent in taste, having a cooling effect, and improves eye-sight. It is efficacious in racta·

pittam, hiccough, vomiting, poison, fever, and an excess of pittam. Pashana gairikam is inferior to swarna gairikam.

गैरिकस्य शोधनम्।

गैरिकं तु गवां दुग्धैर्भावितं शुद्धिमृच्छति।
अथवा किञ्चिदाज्येन भृष्टं शुद्धं प्रजायते॥

Purification of gairikam.

Gairika is purified, if it is subjected to bhavana with cow's milk, or if it is roasted with a little ghee for some time.

गैरिकस्य सत्त्वपातनम्।

गैरिकं सत्त्वरूपं हि नन्दिना परिकीर्त्तितम्।
कैरप्युक्तं पतेत् सत्त्वं क्षाराम्लक्लिन्नगैरिकात्॥

Extraction of essence from gairikam.

Gairikam, according to Nandi, is in itself an essence. According to others, essence can be extracted from gairikam, commingled with ksharas and amlas. This essence gains in efficacy, if combined with mercury.

गैरिकस्य प्रयोगः।

गैरिकं पांशुजं शुण्ठीवचाकट्फलकाञ्जिकम्।
कर्णशोथहरो लेपः सन्निपातज्वरे नृणाम्॥
पित्तज्वरे प्रदातव्यं शोधितं चूर्णगैरिकम्।
केवलं मधुना सार्द्धमथवा रसयोजितम्॥

धन्याकोशीरचन्दनक्काथेन सह सेवितम् ।
एलया सितया वापि गैरिकं रक्तपित्तनुत् ॥
सैन्धवं दारुरात्रि च पथ्यागैरिकमञ्जनम् ।
प्रलेपो वह्रिरेतेषां सर्व्वाच्चिरोगनाशकृत् ॥
लोहितचन्दनं लाचा मालतीकलिका तथा ।
गैरिकेन सह घ्नन्ति व्रणशुक्रं नवोत्थितम् ॥
गैरिकं काञ्जिकप्लुतं शाणमितं सुशोधितम् ।
चतुर्वारेण सेवनाच्छीतपित्तं विनाशयेत् ॥
शोधितं गैरिकं यत्नाद्द रजन्या सह पेषितम् ।
शीतपित्तमुदर्दश्च नाशयेत् परिलेपनात् ॥
गैरिकं शाणमितञ्च भत्तयेत् पित्तजे गदे ।
घृतेन गैरिकं हन्ति लेपात् पित्तविसर्पितम् ॥
तृणराजस्य तैलेन घृतेन वा सुपेषितम् ।
गैरिकं प्रलेपाद्धन्ति वह्निदग्धचतं खलु ।
गैरिकाम्रास्थिजन्तुघ्नरजन्यञ्जनकट्फलम् ।
लेपितं वारिणा पिष्टं योनिकण्डूयनं हरेत् ॥

Uses of gairikam.

Gairikam, pansu salt, shunthi, bacha, katphalam, and kanji—all rubbed together and made into an ointment—cure swelling of the parts around the ears in typhoid and other fevers caused by an excess of the three doshas. In fevers due to an excess of

pittam, gairikam may be used with honey, either alone or with mercury and sulphur. It cures racta pittam, if taken with decoction of dhanya, ushira, and sandal or with ela and sugar. Saindhava, daru haridra, haritaki, gairikam, and rasanjanam—all rubbed together and made into a paste—cure all sorts of eye-diseases, if applied to the eye-lids and the surrounding region. Red sandal, laksha, buds of malati flower, made into a paste and applied all round the eyes, cure vrana shukram of a recent growth. Gairikam, in doses of one fourth of a tola, taken internally four times a day, with kanji, cures shita pittam. Gairikam with turmeric rubbed together and made into a paste cures shita pittam and udarda, by external application. Gairikam, in doses of one fourth of a tola, may be taken with water for the cure of diseases due to an excess of pittam. It cures visarpa due to an excess of pittam, by being rubbed with ghee and applied externally to the parts affected. It cures burns, by external application with cocoanut oil or ghee. Gairikam, kernel of the stone of a mangoe fruit, bidanga, haridra, rasanjanam, and katphalam,—all rubbed with water and applied externally cures itches in the vagina.

अथ कासीसम्।

सितं पीतं हरिच्छ्यामं कासीसं हि चतुर्विधम्।
सितं हि वालुकापूर्वं पीतं पुष्पाद्यमेव हि ॥
तदेव पद्मकासीसं कदाचित् कथ्यते जनैः।
कासीसं हरिताद्यकं सुलभं सुकरं तथा ॥

कासीसं श्यामपूर्वकं धातुकासीसमुच्यते ।
मुक्तकासीससंज्ञश्च तदेव ज्ञायते बुधैः ॥
लौहगन्धकसंयोगात् कासीसं जायते ध्रुवम् ।
क्षाराम्लं बहुवर्णाभमुष्णवीर्य्यं विषापहम् ॥
कासीसं नेत्ररोगनुत् श्वित्रघ्नं केशरञ्जनम् ।
पित्तापस्मारशमनं रसयोगाद्गुणाधिकम् ॥

Kasisam (sulphate of iron).

Kasisam is of four different kinds, viz, white, yellow, green, and black. The white is also called baluka kasisa; the yellow variety is known by the names of puspa kasisa and padma kasisa. The black variety is called dhatu kasisa and mukta kasisa. The green variety can easily be prepared and is found in abundance. Kasisa is a product of iron and sulphur. It is a kshara, sour in taste, and is of various colours. It cures poison, eye diseases, and leucoderma, and is a dyer of hair. It also cures an excess of pittam and hysteria.

पुष्पादिकासीसमतिप्रशस्तमुष्णं कषायाम्लमतीव नेत्र्यम् ।
विषानिलश्लेष्मगदव्रणघ्नं श्वित्रक्षयघ्नं कचरञ्जनं च ॥

Of all the different varieties, the puspa kasisam is the best. It is astringent and sour in taste and is efficacious in eye diseases. It also cures poison, an excess of vayu and phlegm, boils, leucoderma, and consumption. It is a good dyer of hair.

कासीसस्य शोधनम् ।

सकृद् भृङ्गाम्वुना क्लिन्नं कासीसं निर्म्मलं भवेत् ।
कासीसं शुद्धिमाप्नोति पित्तैश्च रजसा स्त्रियः ॥
अथवा निम्वुनीरेण शुद्धिमायाति निश्चितम् ।
तुवरी सत्त्ववत् सत्त्वमेतस्य हि समाहरेत् ॥

Purification of kasisam.

Kasisam is purified, if it is boiled only once with the juice of bhringaraja. It may also be purified by being subjected to bhavana with the biles of animals and with the menstrual discharge of women. It may also be purified with lime juice. An essence may be extracted from kasisam exactly in the same way as from tubari.

कासीसस्य सेवनविधिः ।

वलिना हृतकासीसं कान्तं कासीसमारितम् ।
उभयं समभागं हि त्रिफलावेल्लसंयुतम् ॥
विषमांशघृतक्षौद्रप्लुतं शाणमितं खलु ।
सेवितं हन्ति वेगेन श्वित्रं पाण्डुक्षयामयम् ॥
गुल्मप्लीहगदं शूलं मूलरोगं विशेषतः ।
रसायनविधानेन सेवितं वत्सरावधि ॥
आमसंशोषणं श्रेष्ठं मन्दाग्निपरिदीपनम् ।
पलितं वलिभिः सार्द्धं विनाशयति निश्चितम् ॥

How to take kasisam.

Kasisam, incinerated with sulphur, and an equal quantity of kanta iron, killed with kasisam, taken with triphala, bidanga and an unequal quantity of honey and ghee (the total quantity being one fourth of a tola) cures very quickly the following diseases :— leucoderma, jaundice, pthisis, gulma, spleen, colic, and especially piles. If the medicine mentioned above is taken for one year in accordance with the rules prescribed for taking rasayanas, it destroys mucus, loss of appetite, and signs of premature old age, such as greyness of hair and falling off of the teeth.

अथ कांत्ती (तुवरी) ।

सौराष्ट्राश्मनि संभूता मृत्स्ना सा तुवरी मता ।
वस्त्रेषु लिप्यते याऽसौ मञ्जिष्ठारागरञ्जिनी ॥ *
पीतिका फुल्लिका चेति द्विविधा परिकीर्त्तिता ।
ईषत् पीता गुरुस्निग्धा पीतिका विषनाशिनी ॥
व्रणकुष्ठहरा सर्वकुष्ठघ्नी चाविशेषतः ।
निर्भारा शुभ्रवर्णा च स्निग्धा साम्लाऽपरा मता ॥
सा फुल्लतुवरी प्रोक्ता ताम्रं लेपादयस्यते ।
सौराष्ट्री चामृता कांत्ती स्फटिकामृत्तिका मता ।
आढ़की तुवरी धन्या मृत्स्ना मृत् सुरमृत्तिका ॥ †
गोपीचन्दननाम्ना सा ज्ञायते जनमण्डले ॥

* रागरञ्जिणी इत्येतस्य स्थले रागवर्द्धिनीति पाठान्तरम् ।

† कलायशस्यजातीया स्थूलाढ़क्यपि तुवरीति कथ्यते ।

Kankshi (clay containing alum).

Kankshi or tubari is a clay found in Surat. It can dye clothes with the colour of manjistha. *Kankshi is of two different kinds, viz, pitika and phullika. The former is a little yellow, heavy, and soft. It cures poison, boils in particular, and all sorts of leprosy in general. Tbe second kind of tubari is called, 'fulla-tubari.' It is light, white-coloured, soft, and sour in taste. If applied as a paint to the surface of a copper plate, the colour of the plate changes into that of iron. It is popularly known by the name of gopichandanam.

तुवर्य्याः गुणाः ।

काङ्क्षी कषाया कटुकाम्लकण्ठ्या केश्या व्रणघ्नी विषनाशिनी च ।
श्वित्रापहा नेत्रहिता त्रिदोषशान्तिप्रदा पारद-जारिणी वै ॥

Properties of kankshi.

Kankshi is astringent, pungent, sour, purifier of throat, salutary to hair, curer of boils, poison, and leucoderma. It improves eye-sight, pacifies the three doshas, and helps the exhaustion of mercury.

तुवर्य्याः शोधनम् सत्त्वपातनं च ।

तुवरी कांजिके क्षिप्ता त्रिदिनाच्छुद्धिमृच्छति ।
क्षाराम्लैर्मर्दिता ध्माता सत्त्वं मुञ्चति निश्चितम् ॥

* According to another reading, it enhances the colour of manjistha, if used in the dyeing of clothes.

गोपित्तेन शतं वारान् सौराष्ट्रीं भावयेत्ततः ।
ध्मात्वा च पातयेत् सत्वं, क्रामणं चातिगुह्यकम् ॥

Purification and extraction of essence from tubari.

Tubari is purified, if kept immersed for three days in kanji. It emits an essence, if rubbed with ksharas and amlas and then heated. Essence is also obtained, if it is subjected to bhavana with cow's biles and then heated. The process as to how this essence is made to transform metals is a secret one.

अथ स्फटिका ।

तुवर्य्याः पतितं सत्वं स्फटिकारीहकथ्यते ।
उत्फुल्लयनकार्य्येण वह्नौ शोधनमेति तत् ॥
स्फटी च स्फटिका श्वेता शुभ्रा रङ्गा च रङ्गदा ।
दृढ़रङ्गा च विज्ञेया कांक्षीजा स्फटिकारिका ॥

The essence of tubari is called sphatika, which is purified by being melted over fire.

स्फटिकार्य्याः गुणाः ।

व्रणोरःक्षतशूलघ्नी स्फटिका सूतजारणी ।
सुसैन्धवसमाना सा रोचिषा स्फटिका मता ॥

Properties of sphatika (alum).

Alum cures boils, patches in the lungs, and colic. It helps the exhaustion of mercury. In appearance, it resembles white rock salt.

अथ हरितालम्।

तालं हरितालश्चालं तालकं नटभूषणम्।
चित्रगन्धं विड़ालकं पिञ्जरं मल्लगन्धजम्॥
पातश्च रोमनाशनं मालश्च पिञ्जकं तथा।
सोमलाद्‌गन्धयोगेन जायते हरितालकम्॥
चतुर्धा तालकं प्रोक्तं पत्राख्यं पिण्डसंज्ञकम्।
गोदन्तं वकदालश्च शेषद्वयं तु दुर्लभम्॥

Haritalam (Orpiment).

Haritalam is a compound of sulphur and arsenic, and is of four kinds, viz. Patra haritalam, or vansha patra haritalam, Pinda haritalam, Godanta haritalam, and Vakadala haritalam. The last two are very rare.

(१) पत्रहरितालम्।

स्वर्णवर्णं गुरु स्निग्धं तनुपत्रं च तालकम्।
तत् पत्रतालकं प्रोक्तं वहुपत्रं रसायनम्॥

(1) Patra haritalam.

Patra haritalam is gold-coloured, heavy, soothing and soft, full of thin layers, and glazy. It consists of several layers, and is competent to cure and prevent, when properly prepared, physical decay and senility.

(२) पिण्डहरितालम्।

निष्पत्रं पिण्डसदृशं स्वल्पसत्त्वं तथा गुरु।
स्त्रीपुष्पहरणं तत् तु गुणाल्पं पिण्डतालकम्॥

(2) Pinda haritalam.

Pinda haritalam has no layers, is found in lumps, has very little essence or substance, is heavy, and can stop the discharge of menses. It is inferior in quality to the other varieties.

(३) गोदन्तहरितालम् ।

दीर्घखण्डमतिस्निग्धं गोदन्ताकृतिकं गुरु ।
नीलरेखान्वितं मध्ये पीतं गोदन्ततालकम् ॥

(3) Godanta haritalam.

It is found in long bars, is very soft, has the appearance of cow's teeth, is heavy, and yellow with blue streaks at the centre.

(४) वकदालं हरितालम् ।

अतिस्निग्धं हिमप्रख्यं सपत्रं गुरुतायुतम् ।
तत्तालं वकदालं स्याच्छ्वित्रकुष्ठहरं परम् ॥

(4) Vakadala haritalam.

It is very soft and is generally known by the name of cold haritalam. It has layers, is heavy, and can cure leucoderma and leprosy.

शोधितहरितालस्य गुणाः ।

श्लेष्मरक्तविषवातभूतनूत् केवलं हि खलु पुष्पहृत् स्त्रियः ।
स्निग्धमुष्णकटुकं च दीपनं कुष्ठहारि हरितालमुच्यते ॥

Properties of purified haritalam,

Haritalam, properly purified, cures phlegm, vataraktam, posion, excess of air, and fear from ghosts. It stops menstrual discharge, is soothing, pungent, and produces a warm effect on the system. It increases appetite and cures leprosy.

. मारणयोग्यं हरितालम् ।

पिण्डतालं मृतौ त्याज्यं पत्रालं मृत्यवे हितम् ।
गोदन्तं तु गलत्कुष्ठे श्वेते कुष्ठेऽन्तिमं विदुः ॥

Haritalam fit for incineration.

For the purpose of incineration, patra haritalam is the best suited, whereas pinda haritalam is to be avoided. Godanta haritalam may be incinerated for use in cancer leprosy. The vakadala haritalam is the best for incineration with a view to being used in leucoderma.

अशुद्धहरितालस्य दोषाः ।

(१)

अशुद्धं तालमायुघ्नं कफमारुतमेहकृत् ।
तापस्फोटाङ्गसङ्कोचान् कुरुतेऽतो विशोधयेत् ॥

Evils of using haritalam, not properly purified.

(1)

Haritalam, not properly purified, shortens life and gives rise to an abnormal excess of phlegm, air, spermatorrhoea, gonorrhoea, inflammation, boils, and contraction of the limbs. It should therefore be purified very carefully.

(२)

हरति च हरितालं चारुतां देहजातां
सृजति च वहुतापानङ्गसंकोचपीड़ाम् ।
वितरति कफवातौ कुष्ठरोगं विधत्ते
इदमशितमशुद्धं मारितं चाप्यसम्यक् ॥

(2)

The haritalam which is not purified and which is not properly incinerated gives rise to tbe following ailments, if taken internally :—loss of beauty, inflammation, spasm, excess of phlegm and air, and leprosy.

हरितालस्य शोधनम् ।

प्रथमद्वितीयतृतीयविधयः ।

स्विन्नं कुष्माण्डतोये वा तिलक्षारजलेऽपि वा ।
तोये वा चूर्णसंयुक्ते दोलायन्त्रेण शुध्यति ॥

Purification of haritalam.

First, second, and third processes.

Haritalam is purified, if boiled in a Dola Jantram with juice of kushmanda, or with a solution of the ashes of tila plant or with water dissolved with lime.

चतुर्थो विधिः ।

तालकं कणशः कृत्वा दशांशेन च टङ्कणम् ।
जम्बीरोत्थद्रवैः क्षाल्यं काञ्जिकैः क्षालयेत्ततः ॥
वस्त्रे चतुर्गुणे वद्ध्वा दोलयन्त्रे दिनं पचेत् ॥

सचूर्णेनारणालेन दिनं कुष्माण्डजे रसे ।
स्वेद्यं वा शाल्मलीतोयैस्तालकं शुद्धिमाप्नुयात् ॥

Fourth process.

Haritalam, broken into pieces and combined with one tenth its weight of tankanam, is to be dissolved with lime juice and then with kanji. It is then to be combined in a piece of cloth made four-fold and boiled by Dola Jantram for one day. It is next to be boiled similarly for one day with aranala, dissolved with lime, and then again boiled similarly for one day with juice of kushmanda or with the juice of shalmali bark.

पञ्चमो विधिः ।

विमलपत्रकतालं सुखण्डशः कृतं तदोत्तमवस्त्रे
विवेष्टयेत् ।
धृतमथोत्तमपात्रघटोदरे जम्भरसे स्थिरदोलकयन्त्रे
शुभे ॥
प्रहरयुग्मकृशानुक्रमादिभिः स्वेद्यं स्वतनुशीतलं
पुनस्ततः ।
महिषीमूत्रे क्रमात् कुमारिकासघनचूर्णरसे शर-
पुंखस्य च ॥
सजलनिंवुसुपक्वरसे पुनः सुदृढकोकिलपक्षेचुद्रवे
ततः ।

एवंविधं कृतस्वेदं प्रयत्नतो भवति शुद्धमिदं नट-
। मण्डनम् ॥

Fifth process.

Clean patra haritalam is to be broken into pieces wrapped up in a piece of cloth, and boiled for six hours in the juice of lime fruit, by means of a Dola Jantram. When cooled of itself, the bundle is to be again boiled in the same way in each of the following :—urine of she-buffalo, juice of kanya, solution of lime, mixed with juice of musta, juice of sharapunkha, juice of ripe lime mixed with water, and juice of sugar-cane boiled steadily by charcoal. Thus boiled, haritalam becomes purified.

षष्ठो विधिः ।

मधुतुल्ये घनीभूते कषाये ब्रह्ममूलजे ।
त्रिवारं तालकं भाव्यं पिष्ट्वा मूत्रेऽथ माहिषे ॥
दशोपलैः पुटं देयं तस्य रुद्ध्वाऽथ पेषयेत् ।
एवं द्वादशधा पाच्यं शुद्धं योगेषु योजयेत् ॥

Sixth process.

Haritalam is to be rubbed with the urine of buffalo and subjected to bhavana for three times with the juice of the root of the brahma tree, made as dense as honey. It is then to be confined in a crucible and heated for twelve times by means of fire made of ten pieces of cow-dung cakes, each time. Haritalam, thus purified, may be used for all purposes.

सप्तमो विधिः।

तालकं वंशपत्राख्यं चूर्णोदकविभावितम्।
सप्तभिर्वासरैः शुद्धं ततः कर्म्मणि युज्यते॥

Seventh process.

Vansha patra haritalam is purified, if subjected to bhavana for seven times with lime water.

अष्टमो विधिः।

तालकं वसने वद्ध्वा सचूर्णे काञ्जिके क्षिपेत्।
दोलायन्त्रेण यामैकं ततः कुष्माण्डजे रसे॥
तिलतैले पचेद्द यामं यामं च त्रिफलाजले।
सर्व्वदोषैर्व्विनिर्मुक्तं शुद्धिमायाति तालकम्॥

Eighth process.

Haritalam is purified, if it is boiled by Dola Jantram for three hours each with (1) kanji mixed with lime, (2) juice of kushmanda, (3) tila-oil and (4) decoction of triphala.

नवमो विधिः—रसमाणिक्यम्।

तालकं वंशपत्राख्यं कुष्माण्डसलिले क्षिपेत्।
सप्तधा वा त्रिधा वापि दध्ना चाम्लेन वा पुनः॥
शोषयित्वा पुनः शुष्कं चूर्णयेत् तण्डुलाकृति।
ततः शरावके पात्रे स्थापयेत् कुशलो भिषक्॥

वदरीपल्लवोत्थेन कल्केन लेपयेद्द भिषक् ।
अरुणाभमधः पात्रं तावज्ज्वाला प्रदीयते ॥
स्वांगशीतं समुद्धृत्य माणिक्याभं भवेद्द ध्रुवम् ।
तद्दरक्तिद्वितयं खादेद्द घृतभ्रामरमर्दितम् ॥
संपूज्य देवदेवेशं कुष्ठरोगाद्द विमुच्यते ।
स्फुटितं गलितं यच्च वातरक्तं भगन्दरम् ॥
नाड़ीव्रणं व्रणं दुष्टमुपदंशं विचर्चिकाम् ।
नासास्यसंभवान् रोगान् क्षतान् हन्ति सुदारुणान् ।
पुण्डरीकञ्च चर्म्माख्यं विस्फोटं मण्डलं तथा ॥

Ninth process.

Vansa patram haritalam is to be dissolved for three or seven times with kushmanda juice or sour curd. When dried, this will have to be broken into such small particles as rice. This is then to be confined inside a malla-musha, the joint being closed with a paste made of plum leaves. The samputam is then to be heated until the lower basin gets red hot. The contents are to be taken out, when the whole thing gets cooled of itself. Two gunjas of it is to be taken with ghee and honey every day. It cures all sorts of leprosy, fistula, ulcer, carbuncle, syphilis, eczema, and ulcers in nostrils and throat.

अथ हरितालस्य मारणम् ।

प्रथमो विधिः ।

तालकं कणशः कृत्वा स्थालीमध्ये सुशोधितम् ।
चूर्णोदकेन संपिष्टमपामार्गजटोद्भवैः ॥

क्षारोदकैश्च संपिष्टमूर्द्धाधो यावशूकजम् ।
चूर्णं दत्त्वा निरुध्याथ कुष्माण्डैश्च प्रपूरयेत् ॥
पुनर्मुखं निरुध्याथ चतुर्यामं क्रमाग्निना ।
पचेदेवं हि तच्चूर्णं कुष्ठादौ परियोजयेत् ॥

Incineration of haritalam.

First process.

Purified haritalam is to be broken into pieces, rubbed with lime water, juice of apamarga, solution of ksharas, and then to be kept in an earthen vessel with powdered ksharas of barley husks put below and upon it. This is to be covered with an earthen basin. The remaining portion of the vessel is to be filled with the kernel of a kushmanda fruit. The mouth of the vessel is then to be closed. It is next to be subjected to heat which is to be increased gradually at a uniform rate, for twelve hours. Haritalam, thus incinerated, may be used in leprosy and other diseases.

द्वितीयो विधिः ।

सदलं तालकं शुद्धं पौनर्नवरसेन तु ।
खल्वे विमर्द्दयेदेकं दिनं पश्चाद्विशोषयेत् ॥
ततः पुनर्नवाक्षारैः स्थाल्या अर्द्धं प्रपूरयेत् ।
तत्र तद्गोलकं धृत्वा पुनस्तेनैव पूरयेत् ॥
आकण्ठं पिठरं तस्य पिधानं धारयेन्मुखे ।
स्थालीं चूल्ल्यां समारोप्य क्रमाद्वह्निं विवर्द्धयेत् ॥

दिनान्यन्तरशूल्यानि पञ्च वह्निं प्रदापयेत् ।
एवं तन् म्रियते तालं मात्रा तस्यैव रक्तिका ।
अनुपानान्यनेकानि यथायोग्यं प्रयोजयेत् ॥

Second process.

Purified vansa patra haritalam is to be rubbed in a mortar for one day with the juice of punarnava and made into a lump and dried. Half the portion of an earthen vessel is then to be filled with the kshara of punarnava, upon which is to be kept the lump of haritalam. The portion up to the neck of the vessel is then to be filled with the kshara of punarnava, and the mouth of the vessel to be closed by means of an earthen basin, the joint being tightly closed in the usual way. The vessel is then to be placed over fire and heated continuously for five days, the fire being gradually increased at a uniform rate. The haritalam will thus be incinerated. This is to be used in doses of one gunja a day with suitable anupanam.

तृतीयो विधिः ।

अम्लरोलीजलैर्भाव्यं तालं द्वादशयामकम् ।
तथैव निम्बुनीरेण ततश्चूर्णोदकेन च ॥
प्रक्षाल्य शाल्मलीक्षारैर्द्विगुणैः खातमध्यगम् ।
विधाय कवचीयन्त्रं वालुकाभिः प्रपूरयेत् ॥
द्वादशप्रहरं पक्त्वा स्वांगशीतश्च चूर्णयेत् ।
खादयेद्द रक्तिकामेकां कुष्ठश्लीपदशान्तये ॥

Third process.

Purified haritalam is to be subjected to bhavana for 36 hours with each of the following :—juice of changeri, juice of nimboo (lemon), and lime dissolved with water. This is next to be dissolved in water with double its quantity of kshara obtained by reducing the stones of shalmali fruits to ashes. The solution is then to be dried, put inside a Kavachi Jantram, and heated by means of a Baluka Jantram for 36 hours. When the apparatus gets cooled of itself, the product is to be taken out, powdered and used in doses of one racti a day, for the purpose of curing leprosy and elephantiasis.

चतुर्थो विधिः ।

स्वर्णपत्रं शुद्धतालं पलानां दशसंख्यकम् ।
कौमारीद्रवप्रस्थेन मर्द्दयेद्द्वितयं शुभम् ॥
निम्बुप्रस्थरसैश्चैव वार्णपुंखरसैः पुनः ।
वज्रीप्रस्थरसैश्चैवमर्कस्य च रसैः पृथक् ॥
मर्द्दयेच्च दृढ़ं खल्वे यावद्भवति गोलकम् ।
गोलकं शोषयेत् पश्चाद्द घर्मेण सप्तवासरम् ॥
पलाशभस्ममृद्भाण्डे क्षिप्त्वोपरि च गोलकम् ।
दत्त्वोपरि पुनर्भस्मभाण्डवक्त्रं निरोधयेत् ॥
चूल्ल्यामारोपयेद्द यत्नात् पावकं ज्वालयेत् क्रमात् ।
मन्दमध्यहठाग्नीनां यामानां च द्विषष्टिकम् ॥

स्वांगशीतलमादाय शुभ्रं तालं मृतं ध्रुवम् ।
तण्डुलं तण्डुलार्द्धं वा नागवल्लीदलैर्भजेत् ॥

Fourth process.

Forty tolas of purified gold leaves with an equal quantity of purified haritalam is to be rubbed with one prastha of the juice of each of the following, taken in order of their occurrence, until the whole thing turns into a lump :—kanya, nimboo, sharapunkha, bajri, and arka. The lump is then to be dried in the sun for seven days. In an earthen vessel are to be kept ashes of palasha, upon which is to be kept the lump which is to be covered with the same ashes. The mouth of the vessel is now to be covered with an earthen basin by means of mud, rag, etc. The vessel is then to be heated for 360 hours by means of fire increasing gradually at a uniform rate. When cooled, the white ashes of haritalam are to be collected and used in doses of half to one tandulam (rice) a day.

पञ्चमो विधिः ।

तालं विचूर्णयेत् सूक्ष्मं मर्द्दयं नागार्जुनीद्रवैः ।
सहदेव्या च वलया मर्दयेद् दिवसद्वयम् ॥
तत्तालं रोटकं कृत्वा छायायां च विशोषयेत् ।
हण्डिकायन्त्रमध्यस्थं पलाशभस्मकोपरि ॥
पाच्यं च वालुकायन्त्रे विहितं चण्डवह्निना ।
स्वांगशीतं समुद्धृत्य सर्व्वरोगेषु योजयेत् ॥

Fifth process.

Haritalam is to be powdered very fine and rubbed for two days, with the juice of dugdhika, sahadevi, and bala, and made into a lump, which is to be dried in the shade and confined in a samputam or in a glass bottle, with the ashes of palasha, placed on all sides of the lump, and then heated by a gradually increasing and strong fire by means of a Baluka Jantram or a Handika Jantram (*i.e.*, the apparatus described in the preceding process).

षष्ठो विधिः ।

पलमेकं शुद्धतालं कुमारीरसमर्द्दितम् ।
शरावसंपुटे क्षिप्त्वा यामान् द्वादश संपचेत् ॥
स्वांगशीतं समादेयं मृतं तत् तालकं शुभम् ।
गलत्कुष्ठं हरेच्चैव तालकं तन्न संशयः ॥

Sixth process.

One palam of purified haritalam is to be rubbed with the juice of kanya, dried, kept within a samputam, and heated for 36 hours. Haritalam, thus incinerated, can cure leprosy.

सप्तमो विधिः ।

तालं तु वकदालाख्यं निर्मलं खल्वमध्यगम् ।
दिनसप्तकपर्य्यन्तं कुमारीद्रवमर्द्दितम् ॥
काचकूप्यां विनिःक्षिप्य मुखमुद्घाटयेत्ततः ।
निर्म्माय वालुकायन्त्रं वह्नितापं शनैर्नयेत् ॥

ततो धूमस्य नीलाभः पीतवर्णस्तु दृश्यते ।
मुखमार्गे ततः प्राज्ञो यसेल्लोहशलाकिकाम् ।
तस्य तालस्य मध्ये सा भ्राम्यते च क्षणं क्षणम् ॥
आकृष्य नीयते सान्द्रा सा शलाका विलोक्यते ।
नीलं पीतं यदा किञ्चित् स्वेदरूपं जलं भवेत् ।
दिनैकमपरं स्वेद्यं स्वेदयेद्द् वा दिनद्वयम् ॥
जलरूपो यदा स्वेदो दृश्यते तालकस्य वै ।
शीतलं क्रियते तत्र स्वांगशीतं यथा भवेत् ॥
खर्जुरखोटिकाकारं तालसत्त्वं महोज्ज्वलम् ।
गुरुरूपं दृढं प्राप्य करस्पर्शे च सौख्यदम् ॥
रक्तिमात्रं विचूर्ण्याथ प्रदद्यात् कुष्ठिने खलु ।
क्षुद्वोधो जायतेऽत्यर्थमत्यर्थं सुभगं वपुः ॥
सर्वकुष्ठं गरामयं दूषीविषञ्च हन्ति वै ॥

Seventh process.

Purified Vakadala haritalam is to be rubbed in a mortar for seven days with the juice of kanya, duly dried, and then entered into a glass bottle with its mouth kept open. It is then to be heated by means of a Baluka Jantram over a strong fire. After some time smoke of a bluish yellow colour will come out of the glass bottle.

An iron probe is then to be inserted into the glass bottle, with a view to turn frequently the haritalam by means of it. This probe is to be taken out every now and then and examined. When the probe will

be found to contain a few drops of water, bluish yellow in colour, it is to be taken for granted that the apparatus is to be heated for one or two days more. When the water attached to the probe will be found to be white in colour, the heating is to be stopped and the apparatus to be allowed to cool of itself.

अष्टमो विधिः।

सूक्ष्मं विचूर्णं शुचितालकस्य
सम्भावयेद्विंशतिवासरांश्च।
अश्वत्थतोयैः शुचिखल्वमध्ये
घृष्ट्वा विदध्याद् दृढगोलकञ्च॥
अश्वत्थभूत्यार्धभृते च भाण्डे
न्यसेत्ततो गोलकमेव यत्नात्।
तं पूर्णभूत्या परिपूर्य्य पात्रं
पचेद् गजाह्वे निपुणं निरुध्य॥
सहस्रवन्योपलसंयुते वै
मृतिर्व्रजेद्यामचतुष्टयेन।
न धूममेतद् यदि लोहतप्तं
मुञ्चेत् सुशुद्धं शुभशुक्लवर्णम्॥

Eighth process.

Fine powder of haritalam is to be subjected to bhavana for twenty days with the juice of asvattha, rubbed in a clean mortar and made into a ball, which is to be kept inside a vessel, one half of which is

filled with the ashes of asvatha bark. The remaining portion of this vessel is to be filled again with the same ashes, and the mouth of the vessel is to be closed by means of a basin, as usual. The whole thing is now to be heated for 12 hours in Gajaputam, by means of fire made of one thousand cowdung cakes. Haritalam will thus be incinerated. If it is so, it will assume a white colour and emit no smoke, when heated by an iron rod.

नवमो विधिः ।

शुद्धं तालं चूर्णयित्वा कन्याकुष्माण्डजैर्द्रवैः ।
दध्ना त्रिभावितं शुष्कं गोलं कृत्वा निधापयेत् ॥
हण्डिकायां पटुक्षारैः पूरितायां षडङ्गुलम् ।
क्षारेणाच्छाद्य तां पुनर्लौहपात्रे निधापयेत् ॥
पुनः क्षारेण चाकण्ठं पूरयित्वा निरुध्य च ।
शरावेण मुखं तस्याः मन्दमध्वखराग्निभिः ॥
द्वात्रिंशत् प्रहरान् पाच्यं भस्म स्याच्चूर्णसंनिभम् ।
ससितं तण्डुलोन्मानं वातरक्तज्वरप्रणुत् ॥

Ninth process.

Pure haritalam is to be reduced to powder, subjected to bhavana for three times with each of the following :—kanya, kushmanda, and curd ; and then made into a ball which is to be kept inside an earthen vessel, previously filled with ashes, six angulis deep. This vessel is then to be placed upon an iron pot, and covered on all sides with ashes. It is also to be filled

with ashes up to its neck, covered closely by means of an earthen basin placed at the mouth, and then heated for 96 hours continuously by means of fire gradually rising, at a uniform rate, in the intensity of its heat. This will result in the reduction of the haritalam to ashes having the appearance of lime. This haritalam cures vata-ractam and fever, if taken with sugar in doses of one grain of rice (in weight) a day.

दशमो विधिः ।

एकश्च भागो शुचितालकस्य
भागद्वयं सुन्दरधूमकस्य ।
अन्तर्विभूतिशुभतालचूर्णं
प्रच्छाद्य यत्नात् खलु धूमसारैः ॥
निक्षिप्य सर्वान् शुभभाण्डमध्ये
शरावकेणैव मुखं निरुन्ध्यात् ।
प्रज्वाल्य वह्निं मृदुमध्यचण्डम्
पचेद् भिषग् यामचतुष्टयञ्च ॥
एतैः प्रकारैः मृतिमेति तालम्
निर्धूममेवं किल शङ्कवर्णम् ॥

Tenth process.

One part of pure haritalam is to be put inside an earthen vessel, partly filled with ashes. Upon the haritalam is to be put double its quantity of condensed smoke (soot). The mouth of the vessel is to be closed tightly by means of an earthen vessel. The apparatus is then to be heated for 12 hours by means of fire

rising gradually in the intensity of its heat at a uniform rate. This will result in the incineration of haritalam which will assume a white appearance and will emit no more smoke, even if subjected to further heat.

एकादशो विधिः ।

जम्बीरद्रवमध्ये तु प्रक्षाल्य नटमण्डनम् ।
दशांशं टंकणं दत्त्वा खण्डशः परिमेलयेत् ॥
चतुर्गुणे गाढ़पटे निबध्य प्रहरद्वयम् ।
दोलायन्त्रेण सुस्वेद्यं प्रदीपप्रमितेऽनले ॥
चूर्णतोये च कांजिके कुष्माण्डे निम्बुतैलके ।
त्रिफलाम्बुनि तत्पश्चात् क्षालयित्वाम्लवारिणा ॥
ततः पलाशमूलत्वक्परिपिष्टं प्रशोषयेत् ।
महिषीमूत्रसंपिष्टं पुनस्तं परिशोषयेत् ॥
तद् गोलकं शरावाभ्यां संपुटीकृत्य यत्नतः ।
खाते गजपुटे कृत्वा स्वांगशीतं समुद्धरेत् ॥
अजदुग्धैः पुनः पिष्ट्वा शोषयेद् गोलकीकृतम् ।
आकण्ठं भस्मपालाशं हण्डिकायां विनिक्षिपेत् ॥
सम्यक् चूर्णस्य कुड्यं वै बद्ध्वा तत्र विचक्षणः ।
स्थापयेद् गोलकं तत्र पुनश्चूर्णञ्च भस्म च ॥
यथा धूमो न निर्याति तथा तां च विमुद्रयेत् ।
द्वात्रिंशत् प्रहरान् पाच्यं स्वांगशीतं समुद्धरेत् ।
हिमकुन्देन्दुसङ्काशं निर्धूमं कृष्णवर्त्मणा ॥

Eleventh process.

Haritalam is to be washed with lime juice and mixed with one tenth its weight of tankanam. It is then to be confined in a piece of cloth having four folds, and made into a bundle, which is to be boiled by means of a Dola Jantram, with a slow heat such as is produced by the burning of an earthen lamp lighted with vegetable oil, for six hours, with each of the following :—lime water, kanji, kushmanda juice, lemon oil, and triphala. It is then to be washed with sour vegetable juice, rubbed with the bark of the root of palasha tree, and dried. It is next to be rubbed with the urine of she-buffalo and dried. Next it is to be put into a samputam made of two basins and heated by means of Gajaputam ; the contents of the samputam being taken out when the fire will be extinguished completely and the samputam cooled of itself. The haritalam is then to be rubbed with goat's milk, made into a ball, and dried. It is next to be put into a vessel, covered on all sides with powdered lime, the remaining portion of the vessel being filled with the ashes of palasha. The mouth of the vessel is to be closed in such a way as not to let out any smoke. The vessel is then to be subjected to heat, gradually increasing, for 96 hours continuously, with the result that the haritalam will be found, when taken out after the apparatus gets cooled, to be as white as moon and will emit no smoke, if subjected to further heat.

अस्य हरितालस्य सेवनविधिः ।

रक्तिकास्य प्रदातव्या पुराणगुड़योगतः ।
पथ्यं च चणकस्योक्तं रोटिका षष्ठिकोदनम् ॥

निर्लोणकं च निष्पन्नं खादेच्चैवैकविंशतिम् ।
दिनानि निर्वातगतः सर्वव्यापारवर्जितः ॥
गलत्कुष्ठं पुण्डरीकं श्वित्रं कापालिकं तथा ।
औदुंवरं रक्तजिह्वं काकणं स्फोटमेव च ॥
वातं तु पाण्डुरोगं च दद्रुं पामां विचर्चिकाम् ।
विसर्पमर्द्धशीर्षं च विषादिं च भगन्दरम् ॥
सर्वमेतद् गदं हन्ति सेवितं हरितालकम् ।
अन्यानपि व्रणान् सर्वानन्धकारमिवांशुमान् ॥

How to use the harital-bhasma described above.

One racti in weight of the incinerated haritalam, described above, is to be taken with old molasses for the cure of all sorts of leprosy, skin diseases, carbuncles, fistula, etc. At the time of taking this haritalam, the patient should take bread prepared from chanaka grams and shasthi rice, without the addition of any salt.

द्वादशो विधिः ।

एतच्च तालकं शुद्धं कर्षैकं मृतलोहकम् ।
किञ्चिद्धेम तथा रूप्यं सर्वमेकत्र रोधयेत् ॥
काचकूप्यां मृदा लिप्त्वा सप्तवारान्मुहुर्मुहुः ।
तालकं काचकूप्यां तत् प्रदद्याच्च प्रयत्नतः ॥
वज्रमुद्रां मुखे कृत्वा वह्निना मृदुना खलु ।
संस्थाप्य वालुकायन्त्रे पचेद्यामचतुष्टयम् ॥

स्वांगशीतलमुद्धृत्य पूजयेच्चेष्टदेवताम्।
खल्वे विचूर्णयेत् पूतं रसभाण्डे निधापयेत्॥

Twelfth process.

One karsha of purified haritalam with an equal quantity of incinerated iron and a little of incinerated gold and silver are to be mixed together and put into a glass bottle, properly coated with mud and rag for seven times. This bottle is to be put into a Baluka Jantram and heated for 12 hours. The medicine is to be taken out, when cooled of itself.

त्रयोदशो विधिः।

कुष्माण्डतोये तु दिनं विमर्द्य
तोये च निंवोरपि दर्विकायाः।
एषां तथा सर्वमहीरुहाणां
कुलत्थछिक्काद्रकधूर्त्तभृङ्गम्॥
नागार्जुनी वै सदवीपलाशं
एरण्डमूलं खलु विप्रदण्डी।
सुवर्णवल्लीरसुनं पलाण्डु
गोपालिका वायसिका तथा हि॥
वज्रार्कदुग्धं सुखल्वे विमर्द्य
पृथक् पृथक् वै कृतपिण्डकं तत्।
अश्वत्थभूत्या परिपूर्णपात्रे
संरुध्य तालं विपचेद्ध विधिज्ञैः॥

अनेकरोगान् खलु सर्वकुष्ठम्
मालामपस्मारमथैव मौत्रम् ।
निहन्ति वेगात् शुभपथ्ययोगात्
लोणाम्लतीक्ष्णं प्रयत्नाद् विवर्ज्यम् ॥
द्विकालपथ्यं नियतं विधेयम् ॥

Thirteenth process.

Purified haritalam is to be rubbed separately with each of the following and made into a lump :—juices of kushmanda, nimboo, gojihva, kulattha, chhikkani, ardraka, dhatura, bhringaraja, dugdhika, sahadevi, palasha, eranda roots, brahmadandi, swarna balli, rasona, palandu, gopala karkati, kakamachi, milk of bajri, and arka. The lump is then to be put inside a vessel filled with the ashes of aswatha, and heated as usual, for 96 hours. The haritalam, thus incinerated, cures quickly all sorts of diseases, and especially leprosy, scrofula, hysteria, and urinary diseases, if the patient lives twice a day on a good diet, prepared without salt, pungents, and strong ingredients.

चतुर्दशो विधिः ।

शुद्धं तालं समादाय द्रोणपुष्पीरसैर्भिषक् ।
दिनानि सप्त संमर्द्य यन्त्रे विद्याधरे क्षिपेत् ॥
यामानष्टौ पचेदग्नौ स्वांगशीतलमुद्धरेत् ।
ऊर्द्ध्वपात्रगतं सत्वं गृहीत्वा मर्दयेत् पुनः ॥
त्रिदिनं तद्रसैरेव ततो यन्त्रे पुनः पचेत् ।

तदधो ज्वालयेदग्निमष्टयामानतन्द्रितः ।
एवं पुनः पुनः कुर्य्याद् यावत् सत्त्वं स्थिरं भवेत् ॥
स्थैर्य्यं सत्त्वस्य नियतं जायते सप्तमेऽहनि ।
अष्टमेऽर्कस्य दुग्धेन मर्द्दयेदेकवासरम् ॥
यामानष्टौ पचेदग्नौ कुर्य्यादेवं त्रिवारकम् ।
गलत् कुष्ठं तथा शोथं वातरक्तभवं जयेत् ॥
वातरक्तेषु सर्वेषु योज्यं गुञ्जाद्वयोन्मितम् ।
द्वीपान्तरवचाचूर्णं गृहीत्वा टंकमात्रकम् ॥
गुञ्जामात्रेण तालेन मिश्रितं मधुना भजेत् ।
हन्यते विधिनानेन महागदः प्रियाङ्गजः ॥ *

Fourteenth process.

Purified haritalam is to be rubbed for seven days with the juice of drona puspi and put into a Vidyadhara Jantram, which is to be heated for 24 hours, the contents being taken out when the apparatus gets cooled by radiation. The substance attached to the upper pot is then to be collected, rubbed for three days with the same juice, and again heated in the aforesaid way, for 24 hours continuously. The process is to be

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* प्रियाङ्गव्याधिरित्येतदुपदंशस्य नामान्तरम् । प्रिये अङ्गे शिश्नयोन्योर्जायते अतोऽयं गदः प्रियाङ्गगदः कथ्यते । प्रियाङ्गव्याधि-वहुलसमाजसंपर्कात् हरियूपीयादागतो जनः प्रियाङ्गीत्यभिधानं लब्ध-वानिति ग्रन्थकारस्यानुमितिः । प्रियाङ्गीत्यस्यापभ्रंशेन फिरिङ्गि इति नाम जायते ।

repeated over and over again until the essence of the haritalam becomes stable, which generally takes place after seven days. On the eighth day, the haritalam is to be rubbed for one day with the milk of arka, and heated for 24 hours. This process is to be performed for three times. The product, thus prepared, cures cancer leprosy and swelling of the body due to vataractam, and syphilis. The dose in leprosy is 2 ractis a day, whereas in syphilis only one racti is to be taken with honey and powdered topchini, ¼ of a tola in weight.

पञ्चदशो विधिः ।

नरास्थिनालिकामध्ये संरुध्य तालकं शुभम् ।
संरुध्य यत्नतो क्षारैः पलाशाश्वत्थभूमिजैः ॥
मृदालिप्य तु नालं तं बहुशः शोषयेद् बुधः ।
तीव्राग्निना विपाकेन तालभस्म मनोहरम् ॥
जायते सर्वरोगघ्नं सिद्धानां सिद्धिदायकम् ।
मूलिकामर्दितं तालं यच्छति हि परं फलम् ॥

Fifteenth process.

Purified haritalam is to be kept inside the hollow of a big human bone, the ends being closed by means of the ashes of aswattha, palasha or punarnava. The bone is to be plastered all over, for several times, with mud, etc, and dried each time. It is next to be heated by means of a strong fire, causing the incineration of the haritalam. The product becomes more efficacious, if the haritalam, prior to its being incinerated, were

rubbed with the juices of suitable herbs. The haritalam, thus incinerated, cures all sorts of diseases. It leads the chemist to the attainment of his wished-for object, *i. e.*, fame in the practice of medicine.

अथ हरितालस्य द्रुतिः।

वृहन्मीनोदरे क्षिप्त्वा श्रेष्ठतालं विशोधितम्।
तत् सीवनं चतुष्पार्श्वे यत्नतः साधयेद् भिषक्॥
मृत्पात्रे स्थापयेत् सर्वं शरावेणाल्पमावृतम्।
रक्षयेत् पात्रमेतत् तु निर्जने वनेशोपरि॥
गलिते मत्स्यखण्डे तु दुर्गन्धं जायते भृशम्।
कीटान्यपि प्रजायन्ते क्षुद्राणि च वहूनि च॥
तेषां मध्ये वलिष्ठा ये कीटाः खादन्ति तेऽवलान्।
जायन्ते वृहदाकाराः स्वजनजीवनापहाः॥
पीताभस्वर्णसङ्काशास्तालजास्ते महावलाः।
काचकूप्यां समुद्रायां संरक्ष्यास्ते प्रयत्नतः॥
तप्ते दुग्धान्नपात्रे तामाकण्ठं मज्जितां कूपीम्।
तापयेद् यत्नतो धीमान् कीटानां द्रावनावधि॥
अनेन द्रुतिमाप्नुयुस्तालकीटा महोल्वणाः।
अनया जायते सर्वरोगाणाञ्च क्षयो ध्रुवम्।
धातूनां वेधनञ्चैषा नियतं धनदायिनी॥

Liquefaction of haritalam.

The belly of a big fish is to be cut out very carefully, cleansed of the entrails, and made into a sort of

a bag which is to be filled with purified haritalam of a superior quality, the borders of the bag being sewed carefully by means of thread. The whole thing is then to be kept into an earthen vessel, covered in such a way as to let some air enter into it. The vessel is to be kept securely at the top of a big tree growing in a locality far away from human habitation, so that the stench coming out of the fish in a state of putrefaction may not prove a nuisance to any one. Innumerable insects grow upon the putrefied fish. The stronger among these insects devour the weaker ones until a few very big ones survive. These big ones are very beautiful and have the colour of gold. These are to be taken out and kept suspended, by means of a thread, inside a glass bottle, closed by a light cork. This bottle is to be sunk up to its neck into rice, boiled with milk and still very hot, until the insects melt and collect into a gold-coloured liquid. This liquid may be used in all sorts of diseases, and serves as a very important factor in the secret process of transformation of base metals into gold.

तालभस्मनः परीक्षा ।

वह्नौ क्षिप्तं न जहाति यदा धूमं मनागपि ।
तदा ज्ञेयं मृतं तालमन्यथा न मृतं हि तत् ॥

Test of incinerated haritalam.

Haritalam is considered to be properly incinerated, if it does not emit any smoke when put upon fire; otherwise it is to be considered un-incinerated.

तालभस्मनो गुणाः।

(१)

अशीतिवातान् कफपित्तरोगान्
कुष्ठं च मेहञ्च गुदामयांश्च॥
निहन्ति गुञ्जार्द्धमितं तु तालं
षड्वल्लखण्डेन समं प्रयुक्तम्॥

Merits of incinerated haritalam.

(1)

Incinerated haritalam cures eighty different kinds of diseases due to an abnormal excess of vayu (viz., paralysis, etc.), if taken in doses of half a gunja, mixed with six ballas in weight of khanda (condensed molasses).

(२)

श्वासे कासे क्षये कुष्ठे पित्ते च वातशोणिते।
दद्रुपामाव्रणे वाते तालकं च प्रदापयेत्॥

(2)

Haritalam may be used in asthma, bronchitis phthisis, leprosy pittam, vata racta, ringworm, itches, carbuncle, and diseases due to an excess of vayu.

हरितालभस्मनः अनुपानानि।

सर्वरक्तविकारेषु देयमाम्रहरिद्रया।
सुहालाहलजीराभ्यामपस्मारजिहीर्षया॥

समुद्रफलयोगेन जलोदरविनाशनम्।
देवदालीरसैर्युक्तं भगन्दरहरं परम्॥
प्रियाङ्गदोषजं रोगं हन्ति तालं सुदुस्तरम्।
मञ्जिष्ठादिकषायेण कुष्ठान्यष्टादशानि च॥ *
त्रिफलाशर्करायुक्तं पाण्डुरोगं जयत्यदः।
शुण्ठीचूर्णयुतं हन्यादामवातं सुदुर्जयम्॥
सुवर्णभस्मयोगेन रक्तपित्तविकारनुत्।
तण्डुलीयरसैः सार्द्धं ज्वरमष्टविधं जयेत्॥
एवं सर्वेषु रोगेषु स्वबुद्ध्या कल्पयेद् भिषक्॥

Accompaniments of haritalam.

Incinerated haritalam is to be used with the juice of amra haridra in impurity of the blood; with purified aconite and jeera in hysteria; with samudra phalam in dropsy; with the juice of devadali in bhagandara and priyanga diseases (syphilis); with the decoction of manjista, etc. † in eighteen different kinds

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* मञ्जिष्ठा वाकुची चक्रमर्दश्च पिचुमर्दकः।
हरीतकी हरिद्रा च धात्री वासा शतावरी॥
वला नागवला यष्टिमधुकं क्षुरकोऽपि च।
पटोलस्य लतोशीरं गुड़ूची रक्तचन्दनम्॥
मञ्जिष्ठादिरयं काथः कुष्ठानां नाशनः परः।
वातरक्तस्य संहर्त्ता कण्डूमण्डलनाशनः॥

† Manjistha, bakuchi, chakramarda, nimba, haritaki, haridra, amalaki, basa, shatabari, bala, nagabala, jastimadhu, kokilaksha seeds, patola leaves, ushiram, guduchi, and racta chandana.

of leprosy; with triphala and sugar in jaundice; with powdered shunthi in rheumatism, with incinerated gold in ractapittam; with the juice of tanduliyam in eight different kinds of fever. Such accompaniments may be devised by the physician himself in accordance with the particular requirements of the case.

हरितालस्य सत्त्वपातनम् । *

प्रथमो विधिः ।

कुलत्थक्वाथसौभाग्यमहिष्याज्यमधुप्लुतम् ।
स्थाल्यां क्षिप्त्वा हरितालमल्लेनच्छिद्रयोगिना ॥
सम्यङ् निरुध्य शिखिनं ज्वालयेत् क्रमवर्द्धितम् ।
एकप्रहरमात्रं हि रन्ध्रमाच्छाद्य गोमयैः ॥
यामान्ते छिद्रमुद्घाट्य दृष्टे धूमे च पाण्डरे ।
शीतां स्थालीं समुत्तार्य्य सत्त्वमुत्कृष्य चाहरेत् ॥

Extraction of essence from haritalam.†

First process.

Haritalam is to be rubbed with the decoction of kulattha, tankanam, she-buffalo's ghee, and honey and put into a vessel, covered well with a basin containing a few holes. The vessel is to be heated by fire

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* सत्त्वमेतद् गौरीपाषाणवहुलः हरितालस्य सारांशः । अग्रे गौरीपाषाणं द्रष्टव्यम् ।

† This essence is no other than a substance containing much of arsenic.

increasing gradually. The holes in the basin being stopped all this time by means of cow dung. After three hours of heating the holes are to be opened, and on a pale smoke coming out of these holes, the heating is to be put a stop to. When perfectly cooled, the vessel is to be broken open, and the essence of haritalam collected carefully.

द्वितीयो विधिः ।

पलं तालं रवेर्दुग्धैर्दिनमेकं विमर्दयेत् ।
क्षिप्त्वा षोड़शिकातैले मिश्रयित्वा ततः पचेत् ॥
अनावृतप्रदेशे च सप्तयामावधि ध्रुवम् ।
स्वाङ्गशीतमधःस्थं च सत्वं श्वेतं समाहरेत् ॥

Second process.

One palam of haritalam is to be rubbed for one day with the milk of arka and mixed with sixteen times its weight of oil. It is then to be heated in an open space for 21 hours. When cooled of itself, the essence deposited at the bottom, should be taken out.

तृतीयो विधिः ।

छागपुच्छोद्भवरोमवल्लिभ्यां च समन्वितम् ।
तालकं दिवसद्वयं मर्दयित्वाऽतियत्नतः ॥
युक्तं द्रावणवर्गेण काचकूप्यां विनिक्षिपेत् ।
त्रिधा तां च मृदा लिप्त्वा परिशोष्य खरातपे ॥

ततः खर्परकच्छिद्रे तामर्धञ्चैव कूपिकाम् ।
प्रवेश्य ज्वालयेदग्निं द्वादशप्रहरावधि ॥
कूपीकण्ठस्थितं शीतं शुद्धं सत्त्वं समाहरेत् ।

Third process.

Haritalam is to be rubbed for two days with the fur of a goat's' tail, sulphur, and the dravana-varga (see page 305, Vol I), and then put into a glass bottle, which is to be coated all over with mud and rag, for three times, and dried in the sun. The lower half of this bottle is then to be put inside an earthen vessel which is to be heated for 36 hours. When cooled, the pure essence of haritalam deposited at the neck of the glass bottle is to be collected carefully.

चतुर्थो विधिः ।

पलार्द्धप्रमितं तालं वद्ध्वा वस्त्रे सिते दृढ़े ।
वलिनालिप्य यत्नेन त्रिवारं परिशोष्य च ॥
द्राविते त्रिपले ताम्रे क्षिपेत् तालकपोट्टलीम् ॥
भस्मना छादयेच्छीघ्रं ताम्रेणावेष्टितं सितम् ।
मृदुलं सत्त्वमादद्यात् प्रोक्तं रसे रसायने ॥

Fourth process.

Two tolas of haritalam are to be lightly confined within a white piece of strong cloth and made into a bundle, which is to be coated all over with sulphur (rubbed with a vegetable acid) for three times, and dried each time. This bundle is to be thrown into

12 tolas of melted copper, and the whole thing is to be covered quickly with ashes. When cooled, soft white essence of haritalam, adhering to the surface of the copper, will have to be collected carefully. This is the essence which is required in mercurial operations and medicines.

पञ्चमो विधिः ।

तिर्य्यक्पातनयन्त्रेण ताले भस्मीकृते सति ।
लभ्यते श्वेतवीर्य्यं यत् तन्मात्रा सर्षपोन्मिता ॥
जीर्णज्वरहरं तद्धि कान्तिपुष्टिवलप्रदम् ॥

Fifth process.

If haritalam is incinerated by means of a Tirjak patana Jantram (see page 253, vol I), a kind of white essence is obtained. This is to be used in doses of one sarshapa a day. It cures obstinate fevers and gives rise to beauty, nutrition, and strength.

षष्ठो विधिः ।

लाक्षाराजी तिलाः शिग्रु टंकणं लवणं गुड़म् ।
तालकार्द्धेन संमिश्रच्य छिद्रमूषे निरोधयेत् ॥
पुटेत् पातालयन्त्रेण सत्वं पतति निश्चितम् ॥

Sixth process.

Haritalam, mixed with half its quantity of laksha, raji, tila, shigru, tankanam, labanam, and molasses, all combined, is to be put into a crucible provided with a hole at the bottom and heated by

Patala Jantram, leading to the extraction of the essence.

सप्तमो विधिः ।

तालकं चूर्णयित्वा तु छागक्षीरेण भावयेत् ।
वारत्रयं ततो विह्निमूलं पिष्टा तु मिश्रयेत् ॥
कृत्वा च गोलकं शुष्कं सत्त्वं ग्राह्यश्च पूर्व्ववत् ।
पातालयन्त्रयोगेन यत्नतो भिषजां वरैः ॥

Seventh process.

Haritalam is to be powdered, and subjected to bhavana with goat's milk for three times. It is then to be rubbed with the root of patha, made into a lump, dried, and then heated by a Patala Jantram, leading to the emission of its essence.

अष्टमो विधिः ।

अतसीतैलसंभृष्टं तालकं हण्डिकान्तरे ।
धृत्वा काचघटे पश्चान् मुद्रयेत् तन्मुखं भृशम् ॥
दृढ़ं च सैन्धवं दत्त्वा हण्डिकायां प्रयत्नतः ।
वह्नियोगोऽथ कर्त्तव्यो द्वियामे सत्त्वनिर्गमः ।
अनया क्रियते रीत्या चोत्तमं सत्त्वपातनम् ॥
सर्वकार्य्यकरं सम्यक् सत्त्वं निर्दोषमुत्तमम् ॥

Eighth process.

Haritalam, roasted with linseed oil, and contained in a glass bottle, is to be kept inside an earthen

vessel, almost filled with rock salt. This is then to be heated for six hours leading to the emission of a pure essence of haritalam.

नवमो विधिः ।

क्षारिकालवणं प्रस्थद्वयं तदर्धतालकम् । *
गोमूत्रे मर्दयेद् गाढं दिनानि त्रीणि यत्नतः ॥
कलांशटंकणं देयं हस्तिकर्णद्रवस्तथा ।
द्विगुणं टंकणस्यैव देयं तैलं तिलस्य च ॥
गाढं विमर्द्य सर्व्वं तु शोषयेदतियत्नतः ।
काचकूप्यां निधाय तत् पचेद् यामचतुष्टयम् ।
मृदुधूमो यदोद्भाति श्वेतवर्णश्च पाण्डुरः ।
मुद्रयित्वा मुखं दद्याद् वह्निं यामाष्टकं दृढम् ॥
एवं निस्पद्यते सत्त्वं तालकस्य विशुद्धिमत् ।
कमण्डलुप्रमाणस्य गोमूत्रस्यान्तरे क्षिपेत् ॥
पुनस्तद् विपचेन् मूत्रे यावन् मूत्रक्षयो भवेत् ।
तत उत्तार्य्यते सत्त्वं शीतं सटंकणं हि तत् ॥
त्रिंशदंशमितेनैव गन्धकेन विमर्दयेत् ।
ध्मापयेच्च तदा गाढं ततः सत्त्वं हि जायते ॥
धवलं खोटरूपश्च सर्वदोषैर्विवर्जितम् ।
ध्मापितं पित्तलेनैव चैकादशगुणेन तत् ॥

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* क्षारिकालवणं सौवर्च्चलमेतद्धि ऊषरकाख्यं क्षारम् । भाषायामेतत् सोरेति कथ्यते ।

किञ्चिद्रूप्यसमायुक्तं सत्त्वमेतद् यथाविधि ॥
जायते रूप्यकं सम्यक् चन्द्रकान्तिसमद्युति ॥

Ninth process.

Two prasthas of saltpetre and one prastha of haritalam are to be rubbed together with cow's urine for three days. These are again to be rubbed with one fourth their combined weight of tankanam, an equal quantity of the juice of hasti karna palasha, and tila oil, double in quantity of the tankanam. All these are to be kept in a glass bottle, and heated for 12 hours, and then, as soon as white and pale smoke will be found to come out of the bottle, the mouth of the same will have to be stopped tightly and the apparatus heated for 24 hours more. Then the apparatus will have to be cooled, and the pure essence of haritalam taken out of the bottle.

This essence will have to be boiled with about one prastha of cow's urine until the whole of it evaporates. The essence is then to be rubbed with one thirtieth part of its weight of sulphur and a little of tankanam ; and then heated by a strong heat which changes it into a lump of a compound substance, absolutely free from injurious matters. This compound, with eleven times its weight of brass and a little of pure silver, may be heated in a crucible with the result that the whole thing turns into pure silver.

दशमो विधिः ।

वातारिजयपालयो र्वीजसंयुक्तालकम् ।
कूपीस्थं वालुकायन्त्रे सत्त्वं मुञ्चति यामतः ॥

Tenth process.

Haritalam emits its essence, if rubbed with seeds of eranda and jayapala, and heated in a glass bottle, by means of a Baluka Jantram.

एकादशो विधिः ।

शुद्धचूर्णस्य पादांशं मर्दयेन् नवसारकम् ।
चूर्णद्विगुणतोयेन तत्तोये निर्मलं पचेत् ॥
शनैर्लवणपाकेन यावत्तु लवणं भवेत् ।
अथ सत्तालकं शुद्धं पारदटंकणैर्युतम् ॥
टंकणार्द्धेन तच्चूर्णं मर्दयेत् कन्यकाद्रवैः ।
शरपुंखाद्रवैरेव शुद्धं तत् कूपिकोदरे ॥
पचेद् यामाष्टकं यावत् सत्त्वरूपेण तिष्ठति ॥

Eleventh process.

Pure lime and one fourth its quantity of nava saram are to be rubbed with water, double in quantity of the lime, and to be boiled in that water, exactly in the way salt is prepared by boiling salt water, so that dirty matters found afloat on the surface is thrown away over and over again. Excellent and purified haritalam with an equal quantity of mercury, tankanam, and half the quantity of tankanam of the compound prepared from lime and navasara, are to be rubbed together with the juices of kanya and sharapunkha. All these are to be dried, put into a glass bottle, and heated for 24 hours, resulting in the emission of essence from the haritalam.

द्वादशो विधिः ।

शुद्धमेकपलं तालं तत्समं टंकणं भवेत् ।
मर्द्दयेन् मेषदुग्धेन कुष्माण्डजद्रवैः पुनः ॥
कन्यानिम्बुकनीरेण वज्रार्कपयसा तथा ।
वातारितैलसंयुक्तं मर्द्दयेत् सकृदेव तु ॥
बटकान् कारयेत् पश्चान् मध्वाज्येन समन्वितान् ।
काचकूप्यां विनिक्षिप्य लेपयेन् मृत्स्नकर्पटैः ॥
वालुकायन्त्रगं कुर्य्यात् पचेद्दिनचतुष्टयम् ।
सत्वं कुलिशसङ्काशमूर्द्ध्वे तिष्ठति नान्यथा ॥

Twelfth process.

One palam of purified haritalam and an equal quantity of tankanam are to be rubbed together with each of the following, separately ;—ram's milk, juice of kushmanda, juice of kanya, juice of nimboo, milk of bajra, that of arka, castor oil, honey, and ghee.

These are then to be made into small balls and put into a glass bottle, previously wrapped up with mud and rag for several times. The bottle is then to be heated by means of a Baluka Jantram for four days with the result that essence of haritalam, appearing like diamond, will be found deposited at the upper part of the bottle.

त्रयोदशो विधिः ।

कुलत्थक्वाथटंकणमाहिषघृतमधुयुक्तं
हरितालशुद्धं दद्यादाज्येन भावितम् ।

हण्डिकायां क्षिप्त्वा च निवेश्योपरि सच्छिद्रां
पालिकां सन्धिलेपात् परं क्रमेण वह्निं ॥
यामचतुष्टयं दद्याद् यावच् छिद्रतो
धूमो गच्छति ततः पाण्डुरधूमं दृष्ट्वाग्निं ।
निर्वापयेत् पश्चादग्निस्थितां स्थालीमुत्तार्य्य
स्वांगशीतं विशुद्धं सत्वं ग्राह्यम् ॥

Thirteenth process.

Haritalam, rubbed with decoction of kulattha, tankanam, ghee of she-buffalo, and honey, and subjected to bhavana with ghee is to be put into an earthen vessel covered by means of an earthen basin containing a few holes, the joint being closed tightly. The apparatus is then to be heated for 12 hours, after which pale white smoke is expected to come out through the holes. The fire is then to be extinguished, and when the apparatus gets cooled of itself, the pure essence of haritalam is to be taken out.

हरितालसत्वस्य प्रयोगः ।

वातरक्ते तु दुःसाध्ये सत्वं हि तण्डुलोन्मितम् ।
दद्याच्चणकयुग्भक्ष्यं पथ्यार्थं घृतसंयुतम् ॥
द्विसप्तदिवसैः कान्तिर्जायते रोगवर्जिता ॥

Use of essence of haritalam.

In vataracta of an obstinate type, essence of haritalam is to be used in doses of one grain of rice

in weight, the diet being much of chanaka grams and clarified butter. Fourteen days of use result in the cure of the disease and the complexion of the skin becoming very clear.

अशुद्धहरितालसेवनजनितदोषस्य शान्तिः।

(१)

अजाजीं शर्करायुक्तां सेवते यो दिनत्रयम्।
विकृतिं तालजां हन्याद् यथा दारिद्र्यमुद्यमः॥

(1)

Removal of evil effects due to taking of impure haritalam is effected by taking, for three days, jira, mixed with sugar.

(२)

यवासकरसैश्चैव कुष्माण्डस्वरसैस्तथा।
राजहंसरसेनापि विकृतिं तालजां जयेत्॥

(2)

The evil effects of taking haritalam are removed by taking the juice of one of these three, viz., javasa, kushmanda, and rajahansa.

हरितालसेवने पथ्यापथ्यम्।

एतद् भेषजसंसेवी लवणाम्लौ विवर्जयेत्।
तथा कटुरसं वह्निमातपं यत्नतस्त्यजेत्॥

लवणं यः परित्यक्तुं न शक्नोति कथञ्चन ।
स तु सैन्धवमश्नीयात् मधुरोऽपि रसो हितः ॥

Dietary.

One who takes haritalam should avoid altogether salt, sours, pungents, and exposure to heat of fire and sun. The man who is unable to avoid salt altogether may take a little of rock salt. Sweets are beneficial to the person who takes haritalam.

हरितालेन वेधनक्रिया ।

(१)

रुदन्तीस्वरसेनैव मर्दयेद्धरितालकम् ।
ताम्रपत्रं प्रलेपेन दिव्यं भवति काञ्चनम् ॥

Transformation of base metals into gold by haritalam.

Haritalam is to be rubbed with the juice of rudanti. Copper leaf, smeared with this haritalam, turns into fine gold.

(२)

तालं ताप्यं दरदकुनटी सूतकं सार्द्धभागं
खल्वे कृत्वा त्रिदिनमथितं काकमाचीद्रवेण ।
तेनालेप्यं रविशशिदलं खर्परे वह्नितप्तम्
शुल्वातीतं भवति कनकं सम्बलं पार्थिकानाम् ॥

(2)

The leaf of a metal consisting of 16 parts of silver and 12 parts of copper is to be smeared with an amalgam made of haritalam, makshikam, hingula, manas-shila, and mercury, all rubbed together for three days with the juice of kakamachi, the weight of each of these metals being $\frac{3}{2}$ part of the leaf, which is to be heated after it is so smeared. The product is gold.

(३)

तालं तुल्यां शिलां पिष्ट्वा देवदालीद्रवैर्दिनम् ।
द्रावैरीश्वरलिंग्याश्च दिनमेकं विमर्दयेत् ॥
नागं वङ्गं रसं तुल्यं चूर्णितं पलपञ्चकम् ।
पूर्वकल्केन संयुक्तं समालोड्य घृते पुटेत् ॥
एवं पुनः पुनः पाच्यं पूर्वकल्केन संयुतम् ।
भवेत् षष्टिपुटैः शीघ्रं वङ्गस्तम्भकरं परम् ॥
शतभागेन दातव्यं वङ्गं तारं करोत्ययम् ॥

(3)

Haritalam with an equal quantity of manas-shila is to be rubbed with the juices of devadali and shiva lingi for one day each. Five palas of powdered lead, tin, and mercury, each equal in quantity, are to be rubbed with the amalgam of haritalam and manas-shila, described above, and with ghee and then subjected to putam. The process of rubbing with the amalgam and ghee and then of heating by putam is to be performed sixty times resulting in the prepara-

tion of a compound, which can transform 100 times its weight of tin into silver.

अथ मनःशिला ।

मनःशिला कुनटी च मनोज्ञा नागजिह्विका ।
नैपाली कुलटी शिला मनोह्वा रसनेत्रिका ॥
नेपालिका मनोगुप्ता गोला कल्याणिका तथा ।
रोगशिला तथा नागमाता दिव्यौषधिश्च सा ॥
करञ्जी चैव गोनी च मनःशिला प्रकीर्त्तिता ॥
तालकस्यैव भेदोऽयं मनोह्वा प्रोच्यते जनैः ।
तालकस्त्वतिपीतः स्याद् भवेद् रक्ता मनःशिलाः ॥

Manas-shila (realger),

Manas-shila is only a variety of haritalam ; haritalam is very yellow, whereas manas-shila is reddish in colour.

मनःशिलायाः प्रकाराः ।

मनःशिला त्रिधा प्रोक्ता श्यामाङ्गी कणवीरका ।
खण्डाख्या चेति तद्रूपं विविच्य परिकथ्यते ॥
श्यामा रक्ता च गौरी च भाराढ्या श्यामिकायुता ।
तेजस्विनी च निर्गौरा ताम्राभा कणवीरका ॥
चूर्णीभूताऽतिरक्ताङ्गी सभारा खण्डपूर्विका ।
उत्तरोक्ता गुणैः श्रेष्ठा भूरिसत्वा प्रकीर्त्तिता ॥ ⊛

⊛ त्रिविधासु गुणैः श्रेष्ठा कणवीरा मनःशिला इति पाठान्तरम् ।

Different kinds of manas-shila.

Manas-shila is of three different kinds, viz. shyama, kanaviraka, and khanda. Shyama is reddish white with a black tint and is heavy. Kanabiraka is bright without whiteness, and has the appearance of copper. Khanda is in the form of powder. It is very red and heavy. The last mentioned, viz. khanda, is the best of all varieties and has plenty of essence.

मनःशिलाया गुणाः ।

(१)

मनःशिला स्यात्तु रसायनाग्र्या तिक्ता कटूष्णा
कफवातहन्त्री ।
सत्वाढ्यिका भूतविषाग्निमान्द्यकण्डूतिकासक्षय-
हारिणी च ॥

Properties of manas-shila.

(1)

Manas-shila is an excellent rasayanam (*i.e.* a medi cine which prevents and cures senility and physical decay). It is bitter, pungent, producer of heat, destroyer of phlegm and air ; and has an ample essence. It cures influences exerted by ghosts on human system, poison, indigestion, itches, cough, and phthisis.

(२)

मनःशिला गुरुर्वर्ण्या सरोष्णा लेखनी कटुः ।
तिक्ता स्निग्धा विषश्वासकासभूतविषास्रनुत् ॥

(2)

Manas-shila is heavy, improver of complexion, laxative, producer of heat in the system, destroyer of fat, pungent and bitter in taste, soothing, and curer of poison, asthma, bronchitis, evil influences of ghosts, and impurities of the blood.

अशोधितमनःशिलायाः दोषः ।

अशुद्धा कुरुते शिला मूत्रकृच्छ्रं तथाश्मरीम् ।
मन्दाग्निं मलबन्धं च शुद्धा सर्वरुजापहा ॥

Evil effects of taking manas-shila, not properly purified.

Manas-shila, not properly purified, gives rise to stone disease, stricture, gleet, loss of appetite, and constipation. If properly purified, it cures all sorts of diseases.

मनःशिलायाः शोधनम् ।

प्रथमो विधिः ।

अगस्त्यपत्रतोयेन भाविता सप्तवारकम् ।
शृङ्गवेररसैर्वाऽपि विशुध्यति मनःशिला ॥

Purification of manas-shila.

First process.

Manas-shila is purified, if subjected to bhavana for seven times, with the juice of agasta leaves, or of ginger.

द्वितीयो विधिः ।

जयन्तीभृङ्गराजोत्थरक्तागस्त्यरसैः शिलाम् ।
दोलायन्त्रे पचेद् यामं यामं छागलमूत्रकैः ॥
क्षालयेदारनालेन सर्वरोगेषु योजयेत् ॥

Second process.

Manas-shila is purified and, as such, may be used in all sorts of diseases, if boiled in a Dola Jantram with the juices of jayanti, bhringaraja, and red agastya, for three hours, and with goat's urine for another three hours, and then washed with aranala.

तृतीयो विधिः ।

भृङ्गागस्त्यजयन्तीनामार्द्रकस्य रसेषु च ।
दोलायन्त्रेण संस्विन्ना विशुध्यति मनःशिला ॥

Third process.

Manas-shila is purified, if it is boiled in a Dola Jantram with the juices of bhringaraja, agastya, jayanti, and ardraka.

चतुर्थो विधिः ।

पचेत् त्र्यहमजामूत्रैर्दोलायन्त्रे मनःशिलाम् ।
भावयेत् सप्तधा पित्तैरजायाश्च विशुद्धये ॥

Fourth process.

Manas-shila is purified, if it is boiled with goat's urine for three days, by means of a Dola Jantram, and then subjected to bhavana for seven times with goat's bile.

पञ्चमो विधिः।

मनोह्वा चूर्णतोयेन सप्तकृत्वो विभाविता।
नितरां शुद्धिमायाति ततः कर्मणि युज्यते॥

Fifth process.

Manas-shila is purified, if it is subjected to bhavana for seven times with lime water.

षष्ठो विधिः।

अगस्तिपत्रतोयेन भाविता सप्तवारकम्।
शृङ्गवेररसैर्वापि विशुध्यति मनःशिला॥

Sixth process.

Manas-shila is purified, if subjected to bhavana for seven times with the juice of baka leaves or of ginger.

अथ मनःशिलायाः सत्त्वपातनम्।

प्रथमो विधिः।

अष्टमांशेन किट्टेन गुड़गुग्गुलुसर्पिषा।
कोष्ठ्यां रुद्ध्वा दृढं ध्माता सत्त्वं मुञ्चेन् मनःशिला॥

Extraction of essence of manas-shila.

Manas-shila discharges its essence, if heated strongly by means of a bellows, after having been rubbed with one eighth its weight of oxidised iron, gurh, guggulu, and ghee.

द्वितीयो विधिः ।

भूनागसत्त्वसौभाग्यमदनैश्च विमर्दिताम् ।
कारवल्लीदलाम्भोभिर्मूषायाञ्च विनिक्षिपेत् ॥
शिलां क्षाराम्लनिस्पिष्टां प्रधमेत् तदनन्तरम् ।
कोकिलाद्वयमात्रेण ध्मानात् सत्त्वं त्यजत्यसौ ॥

Second process.

Manas-shila, rubbed with kshara and amla, and mixed with the essence of earthworm, tankanam, madana fruit, and juice of karaballi leaves, all rubbed together, is to be put into a crucible, and heated by means of charcoal, given twice only. This results in the extraction of essence from manas-shila.

अशुद्धमनःशिलासेवनदोषस्य शान्तिः ।

गोक्षीरं माक्षिकयुतं पिवेद् यस्तु दिनत्रयम् ।
कुनटी तस्य देहे तु विकारं न करोति हि ॥

Antidotes to the bad effects of taking impure manas-shila.

Manas-shila fails to produce any bad effect in one who takes cow's milk with honey, for three days.

अथाञ्जनानि ।

अञ्जनं मेचकं ज्ञेयं लोचकं च तथैव च ।
तदेव षड् विजानीयात् सर्वं नेत्रगदे हितम् ॥
सौवीरमञ्जनं चैव नीलाञ्जनं रसाञ्जनम् ।
स्रोतोऽञ्जनं कुलत्थाख्यं पुष्पाञ्जनकमेव च ॥

Anjana (stibnite, sulphide of lead, and other things, mainly used as collyrium).

Anjana is of five different kinds, viz, (1) sauviranjana, (2) nilanjana, (3) rasanjana. (4) srotonjana, (5) kulatthanjana, and (6) puspanjana. All of them are efficacious in eye diseases.

(१) सौवीराञ्जनम् ।

सौवीरमञ्जनं धूम्रं रक्तपित्तहरं हिमम् ।
विषहिक्काक्षिरोगघ्नं व्रणशोधनरोपणम् ।
सुवीरातटिणीगर्भे जायते हि तदञ्जनम् ॥

(*1*) *Sauviranjanam.*

This can be obtained in the beds of river, Suvira. It has the colour of smoke, is cool, and is efficacious in hemorrhage, poison, hiccough, eye disease, and boils.

(२) नीलाञ्जनम् ।

नीलाञ्जनं गुरु स्निग्धं नेत्र्यं नीलं त्रिदोषहृत् ।
रसायनं सुवर्णघ्नं लोहमार्दवकारकम् ॥

(*2*) *Nilanjanam.*

It is blue, heavy, soothing, beneficial to eye-sight, remover of the three doshas, destroyer of senile decay, killer of gold, and has the property of softening the metals.

(३) रसाञ्जनम्।

रसाञ्जनं त्रिधा प्रोक्तं शैलजं कृत्रिमे तथा।
प्रथमोक्तं तार्क्ष्यशैलं रसगर्भञ्च तार्क्ष्यजम्॥
पीताभं तत् कटु श्लेष्मविषनेत्रविकारनुत्।
उष्णं रसायनं तिक्तं छेदनं व्रणदोषहृत्॥
पीतचन्दननिर्यासं रसाञ्जनं द्वितीयकम्।
तत्क्वाथाज् जायते वाऽपि पीताभं वक्त्ररोगनुत्।
श्वासहिक्कापहं वर्ण्यं वातपित्तास्रनाशनम्॥
दार्व्वीक्वाथसमं क्षीरं यावत्पादं पचेद् घनम्।
रसाञ्जनं तदप्युक्तं तृतीयं नेत्रयोः हितम्॥

(3) *Rasanjanam.*

Rasanjanam is of three different kinds, of which the first is obtained in nature in the form of stone, whereas the second and the third are prepared artificially.

(a) The first kind of rasanjana is obtained from rocks in Turkey. It is yellowish in colour, and contains mercury as one of its constituents. It is pungent and bitter in taste, and pacifies phlegm, poison, carbuncles, and eye diseases. It produces heat in the system, prevents and cures senile decay, and cures obesity.

(b) The second kind of rasanjanam is an exudation or concentrated decoction of yellow sandal. It is yellowish in colour. It cures diseases pertaining to the mouth, asthma, hiccough, and an excess of vayu, pitta, and blood.

(c) The third kind of rasanjana is prepared by boiling daru haridra with an equal quantity of milk and condensing the mixture into one fourth its original quantity. This rasanjanam is also very efficacious in eye diseases.

(४) स्रोतोऽञ्जनम् ।

स्रोतोऽञ्जनं हिमं स्निग्धं कषायं स्वादु लेखनम् ।
नेत्र्यं हिक्काविषच्छर्दिकफपित्तास्त्ररोगनुत् ॥
वल्मीकशिखराकारं भङ्गे नीलोत्पलद्युति ।
घृष्टं तु गैरिकच्छायं स्रोतोजं लक्षयेद्बुधः ॥

(4) *Srotonjanam.*

It is cool, soothing, astringent, and sweet. It is efficacious in obesity, eye-diseases, hiccough, poison, nausea, excess of phlegm and animal heat, and impurities of the blood. It has the appearance of the top of a mound of earth raised by white ants; when broken into pieces, its inner surfaces appear to have the colour of a blue lotus, but if rubbed, they turn red as red ochre.

(५) कुलत्थाञ्जनम् ।

कृष्णं कुलत्थकं नेत्र्यं कषायं कटुकं हिमं ।
विषविस्फोटकण्डूनां व्रणार्त्तेश्च निवर्हणम् ॥
काकणादि निहन्ति च कुम्भककामलापहम् ॥

(5) *Kulatthanjanam.*

This is black in colour, astringent, pungent, cool, and is efficacious in eye-diseases, poison, boils, itches, and carbuncle. It also cures a kind of leprosy, called kakanam, and jaundice at a very advanced stage.

(६) पुष्पाञ्जनम्।

पुष्पाञ्जनं सितं स्निग्धं हिमं सर्व्वाक्षिरोगनुत्।
अति दुर्द्धरहिक्काघ्नं विषज्वरगदापहम्॥

(6) *Pushpanjanam.*

It is white, soothing, and cool. It cures all sorts of eye-diseases, hic-cough of a very virulent type, and fever due to poison.

अञ्जनानां शोधनम्।

प्रथमो विधिः।

अञ्जनानि विशुध्यन्ति भृङ्गराजनिजद्रवैः।
सूर्य्यावर्त्तादियोगेन शुद्धिमेति रसाञ्जनन्॥ *

Purification of anjanas.

All the anjanas are purified, if subjected to bhavana with the juice of bhringaraja. Rasanjana alone is also purified, if subjected to bhavana with the juice of suryavarta, etc. †

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* अग्रे कंकुष्ठस्य शोधनप्रणाली द्रष्टव्या।

† See purification of kankustham on page 209.

द्वितीयो विधिः ।

तोयेऽत्युष्णे परिक्षिप्य द्रवीकुर्य्याद् रसाञ्जनम् ।
वाससा स्रावयित्वाऽथ शोषयेद् भानुरश्मिना ॥
एवं विशोधितं सर्व्वकार्य्येषु परियोजयेत् ।
विशुद्धं नाशयेद् व्याधीन् नाविशुद्धं कदाचन ॥

Second process.

Rasanjana is dissolved with a very hot water, filtered through a piece of cloth, and dried in the sun. Thus purified, it cures diseases, otherwise not.

तृतीयो विधिः ।

सर्वाञ्जनं चूर्णयित्वा जम्वीरद्रवभावितम् ।
दिनैकमातपे शुष्कं सर्वकार्य्येषु योजयेत् ॥
एवं गैरिककासीसटंकणं च वराटिका ।
शङ्खस्तोरी च कंकुष्टं शुद्धिमायान्ति निश्चितम् ॥

Third process.

All the anjanas are purified, if they are powdered, subjected to bhavana with lime juice, and dried for one day in the sun. The following are also purified in the same way :—gairika, kasisa, tankana, varatika (cowri shells), shankha, tubari, and kankustha.

अञ्जनानां सत्वपातनम् ।

मनोह्वासत्ववत् सत्वमञ्जनानां समाहरेत् ।
राजावर्त्तकवत् सत्वं ग्राह्यं स्रोतोऽञ्जनादपि ॥

Extraction of essence from anjanas.

Essence of anjanas is to be extracted in the same way as that of manas-shila. The essence of srotonjana may also be obtained in the same way as of rajavarta.

स्रोतोऽञ्जनेन रसबन्धनम् ।

गोशकृद्रसमूत्रेषु घृतक्षौद्रवसासु च ।
भावितं वहुशस्तच्च शीघ्रं बध्नाति सूतकम् ॥

Solidification of mercury by means of srotonjana.

Srotonjana, subjected to bhavana for several times with the juice of cowdung, cow's urine, ghee, honey, and tallow solidifies mercury very soon.

अथ कंकुष्ठम् ।

हिमवत्पादशेखरे कंकुष्ठमुपजायते ।
तदेव त्रिविधं ज्ञेयं नलिकश्वेतरेणुकम् ॥
पीतप्रभं गुरु स्निग्धं श्रेष्ठं कंकुष्ठमादिमम् ।
श्वेतं तस्माद् गुणैर्हीनं सिद्धैश्च कथितं पुरा ॥
श्यामपीतं लघु त्यक्तसत्त्वं नेष्टं हि रेणुकम् ॥
कंकुष्ठं कालकुष्ठञ्च विरङ्गं रङ्गदायकम् । *
रेचकं पुलकं चैव शोधकं कालपालकम् ॥
उपधातुस्तु वङ्गस्य भालुकिना विभाषितम् ॥

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* कालकुष्ठमित्यस्य स्थले काककुष्ठमिति पाठान्तरम् । तथैव विरंगमित्यस्य स्थले वरांगमिति पाठान्तरम् ।

Kankustham (an ore containing tin.)

It is produced at the foot of the Himalayas and is of three different kinds, viz. (1) nalika, (2) white, and (3) renuka. The first is yellow-coloured, heavy, soothing, and the best of all varieties. The second, *i. e.* the white one is inferior to the first, and has very little essence in it. The third variety, viz. renuka, is blackish yellow, light, devoid of essence, and is not suitable for medicinal purposes. Kankustham is an ore containing tin.

कंकुष्ठं तिक्तकटुकं वीर्य्योष्णं चातिरेचनम् ।
व्रणोदावर्त्तशूलार्त्तिगुल्मप्लीहगुदार्त्तिनुत् ॥
नाशयेदामवातं च रेचयेत् क्षणमात्रतः ।
कंकुष्ठं नाशयेच्छीघ्रं कठोदरजलोदरम् ॥

Kankustha is bitter, pungent, producer of hot effect on the system, and highly purgative. It is efficacious in carbuncle, udavarta, colic, gulma, enlargement of the spleen, piles, and fistula. It cures rheumatism and causes purgation very quickly. It also effects a quick cure of an exceptionally enlarged spleen and of dropsy.

कंकुष्ठस्य शोधनम् ।

प्रथमो विधिः ।

कंकुष्ठं शुद्धिमायाति त्रिधा शुण्ठ्यम्बुभावितम् ।

First process.

Kankustha is purified, if subjected to bhavana for three times with the decoction of shunthi.

द्वितीयो विधिः ।

सूर्य्यावर्त्तककदली बन्ध्या कोशातकी च सुरदाली ।
शिग्रुश्च वज्रकन्दो नीरकणा काकमाची च ॥
आसा.करसेन तु लवणाक्षाराम्लभावितं बहुशः ।
शुध्यन्ति खलूपरसा ध्माता मुञ्चन्ति सत्वानि ॥

Second process.

All the uparasas (including kankustham) are purified, if subjected to bhavana for several times with ksharas, amlas, and with the juice of any one of the following :—suryavarta, kadali, bandhya karkotaki, koshataki, devadali, shigru, vajra kanda (wild shuranam), jala pippali, and kakamachi. Essence is discharged by the uparasas (of course, those which have got them), if heated after they have been purified in that way.

सत्वमयं हि कंकुष्ठं न सत्वं पातयेत् ततः ।

Kankustham is full of essence. It is therefore not necessary to extract an essence from it.

कंकुष्ठस्य सेवनविधिः ।

भजेदेनं विरेकार्थं ग्राहिभिर्यवमात्रया ।
नाशयेदामपूर्त्तिंश्च विरेच्य क्षणमात्रतः ॥
भक्षितः सह ताम्बूलैर्विरेच्यासून् विनाशयेत् ।
वर्बूरीमूलिकाक्काथजीरसौभाग्यकं समम् ।
कंकुष्ठविषनाशाय भूयोभूयः पिबेन्नरः ॥

How to take kankustham.

If taken in doses of only one java (barley grain) a day, mixed with some thing which has the property of hardening the stools, kankustham removes all the mucus from the system by purgation. If taken with betel leaf, it causes death by over-purgation. To undo the evil effects of kankustham, it is necessary to drink over and over again the decoction of the root of a barbura (acacia) tree, mixed with an equal quantity of jeera and tankana.

तृतीयोऽध्यायः ।

अथ कम्पिल्लः ।

इष्टकाचूर्णसंकाशश्चन्द्रिकाढ्योऽतिरेचनः ।
सौराष्ट्रदेशे चोत्पन्नः स हि कम्पिल्लकः स्मृतः ॥
पित्तव्रणाध्मानविबन्धनिघ्नः
श्लेष्मोदरार्त्तिक्रिमिगुल्मवैरी ।
मूलामशोफज्वरशूलहारी
कम्पिल्लको रेच्यगदापहारी ॥

CHAPTER III.

Kampilla.

Kampilla is like brick dust, glazy, and highly purgative. It grows in the locality of saurastra (Surat). It is efficacious in an excess of pittam, carbuncles and boils, swelling of the belly with wind, constipation, excess of phlegm, udara, worms, gulma, piles, fistula, fever, and colic, and all other diseases curable by purgation.

कम्पिल्लादिसाधारणोपरसानां शोधनम् ।

सामान्योपरसाः सर्व्वे मातुलुङ्गाद्र्र्कामबुणा ।
त्रिरात्रं भाविता शुष्का भवेयुर्दोषवर्जिता ॥

यानि कानि च सत्वानि तानि शुध्यन्त्यशेषतः ।
ध्मातानि शुद्धिवर्गेण मिलन्ति च परस्परम् ॥

Purification of sadharana uparasas.
(i. e. from kampilla to bhunaga).

The sadharana uparasas, that is uparasas belonging to group III (kampilla to bhunaga) are purified, if subjected to bhavana with the juices of matulunga and ardraka for three times.

All sorts of essences of ores and metals are purified, and combine with one another, if heated with the shuddhi varga (or shodhania gana,see Vol. I, page 306.

गव्याज्येन विमिश्रितो कम्पिल्लो हन्ति लेपनात् ।
व्रणानि चर्मरोगांश्च पृष्ठव्रणमपि ध्रुवम् ॥
विम्बिपत्रप्रलेपं तु सुखोष्णं प्रददेत् खलु ।
आदौ पृष्ठव्रणे ततः काम्पिल्लं हि प्रयोजयेत् ॥
घृताभावे प्रदातव्यं तृणराजस्य तैलकम् ॥

Kampilla cures boils, skin diseases, and even carbuncles on the back bone, if it is mixed with cow's ghee and applied as an ointment. In case of a carbuncle on the back bone, it is necessary, first of all to apply on it, for one day, a paste of bimbi leaves, slightly heated, and then to apply the ointment prepared by mixing powdered kampilla with cow's ghee (or, preferably, goat's ghee). In the absence of ghee, cocoanut oil may be used for this purpose.

अथ गौरीपाषाणः।

गौरीपाषाणको मल्लो दारुमूषश्च मूषकः।
सोमलः सम्बलं शङ्खविषश्च तालसत्त्वकम्॥
गौरीपाषाणकः पीतो विकटो हतचूर्णकः।
रक्ताभः पीतवर्णश्च शङ्खाभश्च त्रयः स्मृताः॥
पूर्व्वं पूर्व्वं गुणैः श्रेष्ठं कथितं रससाधकैः॥
मूषको द्विविधश्चैव खनिजस्तालसम्भूतः।
एरण्डतैलनिम्बूत्थैर्मर्दितं हरितालकम्।
वालुकायन्त्रपाचितं विमुञ्चेद् रक्तशङ्खकम्॥

Gauripashana (Arsenic stone).

Gauripashana is of three kinds, viz, red, yellow, and white. They are mentioned here in order of their merit. It is no other than the essence of haritalam. Gauripashana is also of two kinds, viz. mineral and that which is obtained from haritalam. Haritalam, rubbed with castor oil and lime juice, and heated by means of a Baluka Jantram, discharges red gauripashana, as its essence.

अस्य शोधनम्।

प्रथमो विधिः।

कारवल्लीफले क्षिप्तो यामैकमतियत्नतः।
स्वेदितो दोलिकायन्त्रे शुद्धो भवति मूषकः॥

Purification of arsenic stone.

Arsenic stone is purified, if it is confined inside a

karaballi fruit and boiled for one hour by means of a Dola Jantram.

द्वितीयो विधिः ।

तालवत् सोमलः शोध्यस्तालसत्त्वं स एव हि ।

Second process.

Since gauripashana is an essence of haritalam, it is also to be purified in the same way as haritalam.

अस्य सत्त्वपातनम् ।

तालवद् ग्राहयेत् सत्त्वं शुद्धं शुभ्रं प्रयोजयेत् ।
रसबन्धकरं स्निग्धं दोषघ्नं रसवीर्य्यकृत् ॥

Extraction of essence from gauripashana.

Essence of gauripashana is to be extracted in the same way as that of haritala. This essence is pure white, soothing, and destroyer of the three doshas. It is used in the solidification of mercury and increases the potency of the same.

अथ नवसारः ।

करीरपीलुकाष्ठेषु पच्यमानेषु चोद्भवः ।
क्षारोऽसौ नवसारः स्याच्चुलिकालवणाभिधः ॥
इष्टकादहने जातं पाण्डुरं लावणं लघु ।
तदुक्तं नवसाराख्यं चुलिकालवणञ्च तत् ॥
मनुष्योष्ट्रशूकराणां विष्ठाभस्मजमेव तत् ।
नीरप्लुतञ्च तद्भस्म वाससा गालितं शनैः ॥

वह्निना शोषयेत् प्राज्ञः शेषः स्यान् नवसारकः ।
नवसारो नरसारो नृसारश्च नृसादरः ॥

Navasara (sal ammoniac).

Navasara or chulika salt is a kshara which is sometimes found to grow in karira and pilu wood, when in a state of decomposition. It is the same pale saltish and light thing which is sometimes found deposited on burnt bricks. The stool of man, camel, hog, etc. is to be dissolved with water and filtered through a piece of cloth for several times and then dried up by means of heat, the product being navasara.

अस्य गुणाः ।

(१)

रसेन्द्रजारणं लोहद्रावणं जठराग्निकृत् ।
गुल्मप्लीहास्यशोषघ्नं भुक्तमांसादिजारणम् ।
विड़ांशश्च त्रिदोषघ्नं चुलिकालवणं मतम् ॥

Properties of navasara.

(1)

It helps the exhaustion of mercury and the melting of metals, increases appetite, cures gulma, enlargement of the spleen, and dryness of the mouth. It helps the digestion in the stomach of such heavy food as meat, etc. It is one of the constituents of what is called a vida and is a pacifier of the three doshas.

(२)

पटुः प्रवृत्तिशीलानां स्रावणः शोथहृद्धिमः।
यकृद्दोषे ज्वरे प्लीहि शिरःशूलेऽर्वुदादिषु॥
स्तनरोगे रक्तपित्ते कासे भग्नामये तथा।
योनिव्यापत्सु च ज्ञेयो नरसारः सुखावहः॥

(2)

Navasara is saltish. It expedites the discharge from the system of things (such as blood, kapha, pittam, etc.) which have already commenced to come out. It is cool, and is efficacious in dropsy, heart disease, liver complaints, fever, enlargement of the spleen, head disease, tumour, diseases pertaining to the female breast, ractapittam, cough, fracture of bones and in diseases pertaining to the vagina.

अथ कपर्द्दकः।

पीताभा ग्रन्थिला पृष्ठे दीर्घवृत्ता वराटिका।
चराचरेति सा प्रोक्ता ग्राह्या रसक्रियासु सा॥
सार्द्ध निष्कभरा श्रेष्ठा निष्कभारा च मध्यमा।
पादोननिष्कभारा च कनिष्ठा परिकीर्त्तिता॥
निस्फलाश्च ततो न्यूनाः पुंवराटाश्च पित्तलाः।
दत्वा दत्वा गुणान् भूयो सर्वं हि विकरोति तत्॥

Kapardaka (cowri or marine shells).

The cowrie shell which is yellowish in colour, having a knot and circle on the back, is known by the

name of charachara. Cowries of this type only may be used in medicines. Of these, the one which is $1\frac{1}{2}$ niska (*i. e.*, $\frac{3}{8}$ of a tola) in weight is the best, that which is one niska ($\frac{1}{4}$ of a tola) in weight is of moderate quality, and that which is $\frac{3}{4}$ of a niska (*i. e.* $\frac{3}{16}$ of a tola) in weight is inferior in quality. That which is less than $\frac{3}{16}$ of a tola in weight is a male cowrie, is useless for the purpose of medicines, and causes an excess of pittam, if used in medicines. Although found beneficial in some cases, all such cowries give rise to several evil effects, and should therefore be avoided for medicinal purposes.

वराटिकायाः गुणाः ।

परिणामादिशूलघ्नी ग्रहणीक्षयनाशनी ।
कटूष्णा दीपनी वृष्या नेत्र्या वातकफापहा ॥
रसेन्द्रजारणे प्रोक्तविड्द्रव्येषु शस्यते ।
तदन्ये तु वराटाः स्युर्गुरवः श्लेष्मपित्तलाः ।

Properties of cowry or marine shell.

It cures all sorts of colic, including that which is felt just at the time of digestion of food. It also cures chronic diarrhoea and phthisis. It is pungent, hot, increasing the power of digestion, nutritive, beneficial to the eye, and pacifier of an excess of vayu and kapha (phlegm). It is one of the best of the materials constituting what is called a vida, referred to in the exhaustion of mercury. The cowries which do not conform to the description given above are male cowries—they are not easily digested and give rise to an increase of phlegm and animal heat.

अस्या शोधनम्।

वराटी काञ्जिके स्विन्ना यामाच्छुद्धिमवाप्नुयात्।

Purification of kapardi (cowri).

Kapardi or cowri is purified, if boiled with kanji for three hours.

अस्याः मारणम्।

प्रथमो विधिः।

अङ्गाराग्नौ स्थिता ध्माता सम्यक् प्रोत्फुल्लिता यदा।
स्वांगशीता मृता सा तु पिष्टा सम्यक् प्रयुज्यते॥

Incineration of kapardi or cowrie.

First process.

Cowrie is reduced to ashes, if placed upon charcoal fire until it bursts. When cooled of itself, it may be reduced to powder and used in all things.

द्वितीयो विधिः।

कपर्दी म्रियते नूनं पुटेन चण्डवह्निना।
स्वांगशीतां समुद्धृत्य पिष्टां ततः प्रयोजयेत्॥

Second process.

Kapardi is undoubtedly reduced to ashes, if subjected to putam by means of a strong fire. When cooled of itself, it is to be reduced to powder and used as required.

तृतीयो बिधिः ।

भूगर्त्ते च समे शुद्धे पत्तनं स्थापयेत् सुधीः । *
तुषेण पुरयेत् तस्याः किञ्चिन् मध्यं भिषग्वरः ॥
वराटपूरितां मूषां तन्मध्ये विनिवेशयेत् ।
करीषाग्निं ततो दद्यात् पाणिकायन्त्रमुत्तमम् ।

Third process.

A big and wide-mouthed earthen pot is to be placed in a pit, made in a clean and level soil. About half of this pot is to be filled with paddy husks into which is to be placed the closed crucible or samputam containing cowries. Upon this crucible or samputam is to be made a fire made of cowdung cakes, which will effect the incineration of the cowries. The apparatus referred to here is called the Panika Jantram.

अथ शङ्खः ।

द्विधा स दक्षिणावर्त्तो वामावर्त्तः शुभेतरः ।
दक्षिणावर्त्तशंखस्तु पुण्ययोगादवाप्यते ॥
तिष्ठति यद् गृहे स वै तल्लक्ष्म्याभाजनं भवेत् ।
दक्षिणावर्त्तशंखस्तु त्रिदोषघ्नः शुचिर्निधिः ॥
शंखश्च विमलः श्रेष्ठः चन्द्रकान्तिसमप्रभः ।
अशुद्धो गुणदो नैव शुद्ध एव गुणप्रदः ॥

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* पत्तनं वङ्गभाषायां 'पातना' इति कथ्यते ।

Shankha (conch shell).

Shankha is of two kinds, viz, the dakshinavarta *i. e.*, that which has got its involution from left to right, and the vamavarta *i.e.* that which has got it in an opposite direction. None but the virtuous can procure the former. The latter does not indicate good fortune in the owner. The home-stead which contains a conch of the former description is the abode of the goddess of fortune. Such a shell is a destroyer of an abnormal excess of the three doshas. It is pure and a wealth in itself. A conch shell, which is devoid of dirts, is moon-white in colour, and if duly purified, is commendable for medicinal purposes ; otherwise not.

अस्य शोधनम् ।

अम्लैः सकाञ्जिकैः शङ्खो दोलास्विन्नः सुशुध्यति ।

Purification of shankha.

Shankha is purified, if boiled in a Dola Jantram with amlas, mixed with kanji.

शंखस्य मारणम् ।

अन्धमूषाहतं शंखं पलमेकं विचक्षणः ।
माषार्द्धं टंकणैर्मिश्रं दण्डयोगेन मारयेत् ॥

Incineration of shankha.

One palam of shankha, killed by being heated in a blind crucible is to be rubbed by means of a rod with half a masha of tankanam, and then used in medicines.

अस्य गुणाः ।

शंखः सर्व्वरुजां हन्ति विशेषादुदरामयम् ।
शूलाम्लपित्तविष्ठम्भमेहहृद् वह्निदीपनः ॥
शंखः क्षारो हिमो ग्राही ग्रहणीरेचनाशनः ।
नेत्रपुष्पहरो ·बल्यस्तारुण्यपिटिकाप्रणुत् ॥

Properties of shankha.

Shankha cures all sorts of diseases, especially chronic diarrhoea, colic pain, acidity with biliousness, swelling of the belly with wind, spermatorrhoea, and heart disease. It also increases the power of digestion of food. It is a kshara, and has a cooling effect on the system. It removes looseness of stool even in chronic diarrhoea. It cures white blot in the eye, is a tonic, and cures pimples in the face of youngmen.

अथ वह्निजारः ।

समुद्रे णाग्निनक्रम्य जरायुर्बहिरुज्झितः ।
संशुष्को भानुतापेन सोऽग्निजार इति स्मृतः ॥
अग्निजारस्त्रिदोषघ्नो धनुर्वातादिवातनुत् ।
वर्द्धनो रसवीर्य्यस्य दीपनो जारणस्तथा ॥
अबूधिक्षारसुसंशुद्धं शोधयेत्तं पुन र्न हि ॥

Bahni jara or agnijara.

Agnijara is the uterine excreta of agninakra, (a kind of shark) thrown upon the beach by sea waves

and dried up by the sun. Agnijara is the pacifier of the three doshas. It cures tetanus and other diseases due to an excess of vayu. It increases the potency of mercury and the power of digestion. It is already purified by contact with the kshara contained in sea water, and does not therefore require any further purification.

अथ गिरिसिन्दूरम् ।

महागिरिषु चाल्पीयः पाषाणान्तः स्थितो रसः ।
शुष्कः शोणः स निर्दिष्टो गिरिसिन्दूरसंज्ञया ॥
सिन्दूरं रक्तरेणुश्च नागगर्भश्च सीसजम् ।
सीसकस्योपधातुस्तत् सीसकसदृशं गुणैः ॥
रसगन्धप्रभावेन गुणान्तरयुतश्च तत् ॥

Girisinduram (*Mineral red vermilion*).

This is found in small quantities inside rocks in big mountains. It is dry and red. This is a compound of lead and other things. It has all the properties possessed by lead ; but it possesses other qualities also on account of its containing a little of mercury and sulphur.

अस्य गुणाः ।

(१)

त्रिदोषशमनं भेदि रसबन्धनमग्रिमम् ।
देहलोहकरं नेत्र्यं गिरिसिन्दूरमीरितम् ॥

Properties of girisinduram.

(1)

It is a pacifier of the three doshas, laxative, good solidifier of mercury, and is beneficial to eye-sight. It makes the body as strong as iron.

(२)

सिन्दूरयुग्मवीसर्पकुष्ठकण्डूविषापहम्। *
भग्नसन्धानकारकं व्रणशोधनरोपणम्॥

(2)

Both kinds of red vermilion (viz, girisinduram which is a natural product, and artificial red vermilion manufactured in the laboratory. For the process of preparing the latter, see under lead), are efficacious in erysipelas, leprosy, itches, and poison. They help the joining of broken limbs, are disinfectants, and heal boils and carbuncles.

व्यवहारयोग्यः गिरिसिन्दूरः।

सुरंगोऽग्निसहः सूक्ष्मः स्निग्धः स्वच्छोगुरुर्मृदुः।
सुवर्णाकरजः शुद्धः सिन्दूरो मङ्गलप्रदः॥

Red vermilion fit for use.

Red vermilion is considered pure, and fit for use in medicines, if it is well-coloured, able to stand the heat of fire, fine, soothing, transparent, heavy, soft, and is obtained from a gold mine.

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* सिन्दूरं द्विविधं यथा—गिरिसिन्दूरं नागसिन्दूरञ्च। अनयोर्मध्ये प्रथमं स्वभावजं द्वितीयं नागसम्भूतं कृत्रिमञ्च। अग्रे सीसकप्रकरणे नागसिन्दूरस्य निर्माणविधिर्द्रष्टव्यः।

सिन्दूरस्य शोधनम् ।

प्रथमो विधिः ।

सुवर्णाकरजं शुद्धं सिन्दूरं तु न शोधयेत् ।
क्षीराम्लयोगतोऽन्यत्तु शुद्धिमाप्नोति निश्चितम् ।

Purification of red vermilion.

First process.

The red vermilion which is obtained from a gold mine and is pure in itself need not be purified. The one which is not of this description should be purified by being subjected to bhavana with milk and sour vegetable juice.

द्वितीयो विधिः ।

सिन्दूरं निम्बकद्रावैः पिष्ट्वा घर्मे विशोषयेत् ।
ततस्तण्डुलतोयेन भावनया विशुध्यति ॥

Second process.

Red vermilion is purified, if it is rubbed with lemon juice, dried in the sun, and then subjected to bhavana with rice water.

अथ हिङ्गुलः (Cinnabar).

हिङ्गुलस्य भेदः ।

हिङ्गुलो दरदो म्लेच्छश्चित्राङ्गश्चूर्णपारदः ।
दरदस्त्रिविधः प्रोक्तश्चर्म्मारः शुकतुण्डकः ।
हंसपादस्तृतीयः स्याद् गुणवानुत्तरोत्तरम् ॥

चर्म्मारः शुकवर्णः स्यात् पीताभः शुकतुण्डकः ।
जपाकुसुमवर्णाभो हंसपादो महोत्तमः ॥
श्वेतरेखः प्रवालाभो हंसपाक इति स्मृतः ॥

Varieties of hingula.

Hingula is of three different kinds, viz, (1) charmara, (2) shuka tundaka, and (3) hansa pada. Of these, the third is better than the second, and the second is better than the first. Charmara has the colour of a parrot; shuka tundaka is yellowish; whereas hansapaka is as red as japa flower and coral, with white streaks here and there.

अस्य गुणाः ।

हिंगुलः सर्व्वदोषघ्नो दीपनोऽतिरसायनः ।
सर्व्वरोगहरो वृष्यो जारणायातिशस्यते ॥
विशेषान् मेहकुष्ठघ्नो रुचिमेधाबलाग्निदः ।
एतस्मादाहृतः सूतो जीर्णगन्धसमो गुणैः ॥

Properties of hingula.

Hingula is a destroyer of all the three doshas (*i.e.* abnormal excess of vayu, pittam, and kapha). It increases the power of digesting food, and is an excellent medicine for the cure and prevention of senile decay. It cures all sorts of diseases (if used with suitable accompaniments); is nutritive, and is very useful for the purpose of incineration of metals. Especially does it cure spermatorrhoea and leprosy. It

increases appetite, strength, memory, and power of digestion. Mercury, extracted from hingula, is as good as that which has swallowed some sulphur. (For the process of absorption of sulphur by mercury, see vol. 1.)

हिङ्गुलस्य शोधनम् ।

प्रथमो विधिः ।

सप्तधा चार्द्रकद्रावैर्लकुचस्याम्बुनापि वा ।
हिंगुलो भावितः शुष्को निर्दोषो जायते खलु ॥

First process.

Hingula is purified, if subjected to bhavana for seven times with the juice of ginger or lakucha.

द्वितीयो विधिः ।

अम्लवर्गद्रवैः पिष्ट्वा दरदो माहिषेण च ।
दुग्धेन सप्तधा पिष्टः शुष्कीभूतो विशुध्यति ॥

Second process.

Hingula is purified, if it is rubbed for seven times with the juice of the amlavarga and buffaloe's milk, and dried each time it is so rubbed.

तृतीयो विधिः ।

मेषदुग्धेन ररदमम्लवर्गैर्विभावितम् ।
सप्तवारं प्रयत्नेन शुद्धिमायाति निश्चितम् ॥

Third process.

Hingula is purified, if it is subjected to bhavana for seven times with ram's milk and the juice of the amla varga.

चतुर्थो विधिः।

दरदं दोलिकायन्त्रे पक्वं जम्बीरजैर्द्रवैः।
सप्तवारमजामूत्रैर्भावितं शुद्धिमेति हि॥

Fourth process.

Hingula is purified, if it is boiled in a Dola Jantram with lime juice, and then subjected to bhavana for seven times with goat's urine.

पञ्चमो विधिः।

जयन्त्याः स्वरसे मूत्रे काञ्जिके निम्बुजद्रवे।
दोलायन्त्रे त्र्यहं पाच्यं दरदं हि विशुद्धये॥

Hingula is purified, if it is boiled for three days in a Dola Jantram with the juice of jayanti leaves, or in urine, or in kanji, or in lemon juice.

हिंगुलस्य पाकः।

प्रथमो विधिः (शतार्कदरदः)।

चणकनिभखण्डानि दरदस्य तु कारयेत्।
सीसजे चायसे पात्रे स्थापितं तद्ध धमेद्द दृढम्॥
जातायामुष्णतायां वै तत्र द्रव्याणि सेचयेत्।
पाच्यतुल्यं द्रवद्रव्यं ततश्च वह्निभावना॥

मेषक्षीरेण दशधा दशधा क्षीरिकार्कजैः ।
दीप्तवर्गेण दशधा विरेकार्कैश्च पञ्चधा ॥ *
पञ्चधा दुग्धवर्गेण ततश्च रौद्रभावनाः ।
दीयन्ते पूर्व्ववत् सम्यक् पूर्व्वप्रोक्तक्रमेण च ॥
अयं शतार्कदरदो नानारोगविनाशकः ।
क्षुद्बोधस्य करो नित्यं योगवाही निगद्यते ॥

Preparations of Hingula.

First process.

Hingula is to be broken into pieces of the size of chana gram and kept in a pot made of lead or iron. It is then to be heated steadily. When heated, it is to be saturated with each of the liquids undermentioned, the quantity of the latter being equal to the hingula itself. When one of the liquids gets dried up, the hingula is to be saturated with the liquid next mentioned, and so on. The juice or liquids are ;— ram's milk for ten times, juice of kshirika for ten times, juice of arka for ten times, decoction of the dipta varga for ten times, juice of virekarka (pilu) for five times, dugdha varga (see page 303, vol I). for five times.

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* दीप्तवर्गः पिप्पल्यादिगणः—यथा, पिप्पलीपिप्पलीमूलचव्य-चित्रकशृङ्गवेरमरिचहस्तिपिप्पलीहरेणुकैलाजमोदेन्द्रयवपाठाजीरकसर्षपमहानिम्बफलहिङ्गुभार्गीमधुरसातिविषावचाविडङ्गानिकटुरोहिणीचेति, पिप्पल्यादिः कफहरः प्रतिश्यायानिलारुचीः । निहन्याद्दीपनो गुल्म-शूलघ्नश्चामपाचनः ॥

The hingula is then to be subjected to bhavana with all the liquids mentioned above, one by one, in order of their merit.

This hingula is called the "Shatarka darada", or the hingula which has been prepared with one hundred liquids. This cures various diseases and is a "jogabahi" or a medicine which enhances the properties of a thing with which it is taken.

द्वितीयो विधिः ।

हिंगुलं द्विपलं शुद्धं वद्ध्वा वस्त्रे चतुर्गुणे ।
षट्पलं कन्दरीमूलं सम्यक् संकुट्य वुद्धिमान् ॥
ततस्तस्मिन् परिक्षिप्य गोलमेकं प्रकल्पयेत् ।
एरण्डपत्रैराच्छाद्य मृदा संलेपयेद् दृढम् ॥
पचेत् तद् गोलकं विद्वानुपलैर्दशभिस्ततः ।
एवं सम्यक् प्रकारेण पुटान्येकोत्तरं शतम् ॥
दत्त्वा प्रतिदिनं खादेल्लवङ्गस्यानुपानतः ।
गुञ्जामात्रं गुणैस्तुल्यं रससिन्दूरकस्य च ॥

Second process.

Two palas of purified hingula are to be confined in a piece of cloth, four-folded. Six palas of the root of kandari (gopala karkati or palandu ?) are to be rubbed well and made into a paste, with which is to be coated the surface of the bundle containing hingula, the whole thing being made into a ball which is to be wrapped up well with eranda leaves and then coated very carefully with mud, and dried. This ball

is to be heated by putam with a fire made of ten pieces of cowdung cakes. This is to be done for one hundred and one times. The medicine, thus prepared, is equal in potency to rasa-sinduram, prepared carefully. Dose, one racti a day to be taken with an equal quantity of powdered lavanga.

तृतीयो विधिः ।

शोधितं दरदं बद्धा दृढं सुतनुकर्पटे ।
पलाण्डुकल्कमध्यस्थमेरण्डपत्रवेष्टितम् ॥
विलिम्पेद् वस्त्रमृत्स्नया शोषयेच्च खरातपे ।
पुटेत्तच्छतधा यत्नाद् दशभिश्च वनोत्पलैः ॥
एवञ्च शतधा पाच्यं वृन्ताकफलमध्यगम् ।
इन्द्रायणीफले चैवं पक्काम्लवेतसे तथा ॥
शतधा शतधा पाच्यं यत्नतो खलु धीमता ।
गुञ्जामितं रसं चैतत् ताम्बूलैः सह भक्षयेत् ॥
श्वासकासज्वरघ्नञ्च मेधाकान्तिस्मृतिप्रदम् ।
वामाप्रीतिप्रदायकं सुखदञ्च रसायनम् ॥

Third process.

Purified hingula is to be wrapped up by means of a fine piece of cloth, coated all over with a paste made of onion, and made into a ball, which is to be covered with eranda leaves and then with mud and rags. The ball is then to be dried and heated by a putam by means of fire made of ten pieces of cowdung cakes. The process is to be performed one

hundred times. It is again to be performed hundred times with each of the following, used as paste, instead of onion ;—egg fruit, fruit of indra baruni, and ripe amla vetasa fruit. Hingula is thus subjected to putam for four hundred times, *i. e.*, one hundred times with each of the following :—onion, egg fruit, indra baruni, and amla vetasa. The medicine, thus prepared, is to be taken with betel leaf in doses of one racti a day. Thus used, it cures asthma, cough, fever, increases retentive and faculties, beauty, memory, and procreative energy. It also has the power to prevent and cure senility.

कृत्रिमहिंगुलजननस्य विधिः ।

हिंगुलो द्विविधो ज्ञेयो खनिजः कृत्रिमस्तथा ।
रसगन्धकसंयोगात् रच्यते वै क्रियाविदा ॥
अशुद्धं पारदं भागं चतुर्भागं तु गन्धकम् ।
क्षिप्त्वाभावायसे पात्रे क्षणं मृद्वग्निना पचेत् ॥
कृत्वाऽथ खण्डशः सम्यक् काचकूप्यां निरुध्य च ।
वस्त्रमृत्तिकया सम्यक् काचकूपीं प्रलेपयेत् ॥
सर्वतोऽङ्गुलिमानेन छायाशुष्कं तु कारयेत् ।
वालुकायन्त्रगर्भे तु दिनं मृद्वग्निना पचेत् ॥
क्रमवृद्ध्याग्निना पश्चात् पचेद् दिवसपञ्चकम् ।
उद्धृतः सप्तमेऽहनि हिंगुलः स्यात् मनोहरः ॥

Preparation of cinnabar at laboratory.

Hingula is of two kinds, viz, (1) that which is obtained in mines and (2) that which is prepared at

laboratory by the combination of mercury and sulphur. The process of preparing chinnabar at laboratory is as follows :—One part of mercury (which need not be purified) and four parts of sulphur are to be placed in an iron pot, and heated for some time. The amalgam is then to be broken into pieces and put into a glass bottle, previously coated all round with mud and rag one anguli deep, and dried in shade. The bottle is to be heated by means of a Baluka Jantram for one day with mild heat. It is then to be heated for five days continuously by means of a fire increasing gradually in intensity at a uniform rate. The heating is then to be discontinued and the contents of the glass bottle taken out on the seventh day. The product will be found to be hingula.

अशुद्धहिंगुलस्य दोषः ।

अशुद्धो दरदः कुर्य्यात् कुष्ठं क्लैव्यं क्लमं भ्रमम् ।
मोहं च शोधयेत् तस्मात् सिद्धवैद्यस्तु हिंगुलम् ॥

Evil effects of impure hingula.

Hingula, not properly purified, gives rise to leprosy, impotency, fatigue, giddiness, and derangement of the brain. The chemist physician should, therefore, purify it.

अस्य शान्तिः ।

उत्पद्यते यदा व्याधिर्दरदस्य निषेवणात् ।
तदा सूतकवत् सर्वाः कुर्य्याद् वैद्यः प्रतिक्रियाः ॥

Their remedies,

The evil effects of taking hingula, not properly purified, may be remedied in the same way as prescribed in the case of mercury.

दरदसत्त्वम्।

दरदः पातनायन्त्रे पातितश्च जलाशये।
सूतरूपं महासत्त्वं विमुञ्चति न संशयः॥

Essencc of hingula.

Hingula discharges its essence in the shape of mercury, if subjected to sublimation, the sublimated mercury being allowed to be condensed in a water trough forming a part of the Tirjak Patana Jantram.

अथ मृद्दारश्रृङ्गकम्। ⊛

सदलं पीतवर्णं च भवेद् गुर्जरमण्डले।
अर्वुदस्य गिरेः पार्श्वे जातं मृद्दारश्रृङ्गकम्॥
सीससत्त्वं गुरु श्लेष्मशमनं पुंगदापहम्।
रसवन्धनमुत्कृष्टं केशरञ्जनमुत्तमम्॥

Mriddara-shringakam. (an ore of lead).

It is found by the side of the Arvuda hill near about Gurjara (Gujrat). It is yellow in colour. It has lead for its essence. It is heavy, pacifier of phlegm andcurer of syphilis. It helps the solidification of mercury and is a good dyer of hair.

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* मुद्राशङ्गमित्यस्य प्रचलितनाम।

अस्य शोधनम् ।

कम्पिल्लवच्छोध्यमेतत् ।

Purification of Mriddara shringakam.

The process is the same as in kampilla.

अथ भूनागः ।

वर्षासु वृष्टिसंक्लिन्ने भूगर्भे संभवन्ति हि ।
जन्तवः क्रिमिरूपा ये ते भूनागा इति स्मृताः ॥
चतुर्विधाश्च भूनागाः स्वर्णादिखनिसम्भवाः ।
स्वर्णादिभूमिसंभूता दुर्लभास्ते प्रकीर्त्तिताः ॥
ताम्रभूमिभवाः प्रायः सुलभा गुणवत्तराः ।
सामान्यभूमिजाः स्वल्पगुणा हि स्वल्पसत्वकाः ॥

Bhunaga (Earthworm).

Earth worms are of four different kinds, according to the nature of the mines, in the neighbourhood of which they grow, viz, (1) those which grow near gold mines, (2) those which grow near silver mines, (3) those which grow near iron mines, and (4) those which grow near copper mines. The first three are rare. The fourth is easier to procure, and is more efficacious than the other varieties. Earth worms growing in ordinary soil are of very little worth, and have got a very little essence.

अस्य शोधनम् ।

रसकालशिलातुत्थसत्वक्षाराम्लपाचनैः ।
दिनेनैकेन शुध्यन्ति भूनागाद्या न संशयः ॥

Purification of earthworms.

Rasaka, haritala, manas-shila, essence of tuttham, and earth worms, etc. are purified by being boiled with ksharas, and amlas, for one day only.

भूनागस्य सत्वपातनम्।

प्रथमो विधिः।

क्षीरेण पक्त्वा भूनागं तंमृदा वाऽथ टंकणैः।
भृष्टैश्चक्रीं विधायाथ पात्यं सत्त्वं ततः किल॥

Extraction of essence from earthworm.
First process.

Essence can be obtained from earth worms, if they are boiled with milk, rubbed with the soil raised by these worms or with tankanam, and then heated.

द्वितीयो विधिः।

शरत्कालसमुद्भूता भूनागा गुड़मिश्रिताः।
मध्वाज्यटंकणयुताः कदलीकन्दमर्दिताः॥
शूरणेन समोपेता विशोष्य गुटिकीकृताः।
ध्मायमाना भृशं किट्टमध्यात् सत्त्वं क्षरन्ति हि॥

Second process.

Earth worms growing in sharat (*i. e.* the two months next after the rainy season) are to be mixed with molasses, honey, ghee, tankana, tuber of the root of a banana plant, and tuber of shurana. All these are to be rubbed into a ball, dried, and then heated until essence is discharged. This essence is to be taken out of the dirty substance.

तृतीयो विधिः ।

(ताम्रभूनागसत्त्वपातनम्)

ताम्रभूभवभूनागान् गृहीत्वा यत्नतो भिषक् ।
गुड़गुग्गुललाक्षोर्णामत्स्यपिण्याकटंकणैः ॥
मर्दयित्वा दृढं यत्नाच्छोषयित्वा धमेत् सुखम् ।
पात्यते ताम्रवत् सत्त्वं तस्मात् पक्षाच्च वर्हिणाम् ॥

Third process.

(*Extraction of essence from copper earth-worms*).

Earth-worms growing in the proximity of copper mines are to be rubbed with molasses, guggula, lac, wool, small fish, oil cakes, and borax, and made into a ball, which is to be dried and heated, resulting in the discharge of a copper-like essence. An essence can similarly be obtained from pea-cock's feathers.

भूनागसत्त्वस्य गुणाः ।

सत्त्वं भूनागजं शीतं सर्वकुष्ठव्रणप्रणुत् ।
तद्युक्तजलपानेन स्थावरजंगमं बिषम् ॥
नश्यति यच्छति ध्रुवम् पारदमग्निधीरताम् ।
एवं मयूरपक्षजसत्त्वस्यापि गुणा मताः ॥

Properties of the essence of earth-worms.

Essence of earth-worms is cool. It cures all sorts of carbuncles and leprosy. A draught of water touched by this essence has the property of pacifying all sorts of poisons, organic or inorganic. It imparts to mercury the property of standing the heat of fire. Such are also the properties of the essence of peacock's feathers.

चतुर्थोऽध्यायः ।

अथ धातवः ।

स्वर्णंताराऽर्कलौहश्च यशोदत्रपुसीसकम् ।
सप्तैतानि च लोहानि शुद्धानि क्षितिमण्डले ॥
त्रितयं मिश्रलोहश्च पित्तलं कांस्यवर्त्तकम् ।
धातुर्लोहलुहश्चापि सर्व्वे चैकार्थवाचकाः ॥
बलीपलितखालित्यकार्श्याबल्यज्वरामयान् ।
निवार्य्य दधते देहं नृणां तद्धातवो मताः ॥

CHAPTER VI.

Metals.

There are seven metals, viz. gold, silver, copper, iron, zinc, tin, and lead. The mixed metals are three in number, viz. brass, bell-metal, and vartaka. They are called dhatus (from dha = to sustain), simply because they prevent senility and thinness, and cure fever and other diseases, and thus sustain the system.

अथ स्वर्णम् ।

स्वर्णं सुवर्णं कनकं हिरण्यं हेम हाटकम् ।
तपनीयञ्च गाङ्गेयं कलधौतञ्च काञ्चनम् ॥
चामीकरं शातकुम्भं तथा कार्त्तस्वरञ्च तत् ।
जाम्बुनदं जातरूपं महारजतमित्यपि ॥

दाहे रक्तं सितं छेदे निकषे कुङ्कुमप्रभम् ।
मलेन हीनं स्निग्धं च कोमलं गुरु हेम सत् ॥
तच्छ्वेतं कठिनं रुक्षं विवर्णं समलं दलम् ।
दाहे च्छेदेऽसितं श्वेतं कषे त्याज्यं लघु स्फुटम् ॥

Suvarna (Gold).

Gold is red when melted, but white when cut into two. It leaves a saffron-like tint, when rubbed upon a touch stone. The gold which is devoid of impurities, soothing, soft, and heavy is commendable. That which is white, hard, coarse, dis-coloured, full of impurities, consistis of layers turns black when melted and cut into two, leaves a white impression on a touch stone, is light and brittle, is to be avoided.

अस्य प्रकारः ।

सुवर्णं द्विविधं प्रोक्तं वेधजं खनिजं तथा ;
रसेन्द्रवेधसंभूतं तद्वेधजमुदाहृतम् ।
षोड़शवर्णिकं पूतं श्रेष्ठं तत्तु रसायनम् ॥
तत्र तत्र गिरीणां हि जातं खनिषु यद्भवेत् ।
तच्चतुर्दशवर्णाढंच शोधितं सर्वरोगहृत् ॥
भक्षितमनुपानेन यथाविधि विमारितम् ॥

Varities of gold.

Gold is of two kinds, viz, that which is transformed from base metals, through the agency, mainly, of mercury, especially prepared, and that which is

obtained from mines. The first variety is full of sixteen colours, whereas the second has combined in itself only fourteen colours. The first is the purest, best, and has the property of preventing and curing senility, whereas the latter has the property of curing all the diseases, if duly purified, incinerated, and applied as medicine for internal use with suitable accompaniments.

सुवर्णस्य गुणाः ।

(१)

स्निग्धं मेध्यं विषगदहरं वृंहणं वृष्यमग्र्यं
यक्ष्मोन्मादप्रशमनपरं देहरोगप्रमाथि ।
मेधाबुद्धिस्मृतिसुखकरं सर्व्वदोषामयघ्नं
रुच्यं दीपि प्रशमितरुजं स्वादुपाकं सुवर्णम् ॥

Properties of gold.

(1)

Gold is soothing, pure, nutritive, curer of poison, phthisis, insanity, and other diseases. It increases memory, intelligence, retentive faculties, appetite, and power of digestion of food. It pacifies all the three doshas and is sweet in taste, after it is digested in the stomach.

(२)

सुवर्णं शीतलं वृष्यं बल्यं गुरु रसायनम् ।
स्वादु तिक्तञ्च तुवरं पाके च स्वादु पिच्छिलम् ॥

पवित्रं वृंहणं नेत्र्यं मेधास्मृतिमतिप्रदम् ।
हृद्यमायुष्करं कान्तिवाग्विशुद्धिस्थिरत्वकृत् ॥
विषद्वयक्षयोन्मादत्रिदोषज्वरशोषजित् ॥

(2)

Gold is cool, nutritive, strengthening, heavy, curer and preventer of senility, sweet, bitter, and astringent in taste. It turns sweet and slippery after it is digested in the stomach. It is pure, nutritive, beneficial to eye sight, increaser of the retentive faculties, memory and consciousness, beneficial to the heart, and increaser of longevity. It stabilises beauty, and purity of speech. It cures two kinds of poison (*i. e.* natural and artificial), phthisis, and insanity.

(३)

आयुर्लक्ष्मीप्रभाधीस्मृतिकरमखिलव्याधिविध्वंसिपुण्यं
भुतावेशप्रशान्तिस्मरभरसुखदं सौख्यपुष्टि
प्रकाशि ।
गाङ्गेयं चाथ रूप्यं गदहरमजराकारि मोहापहारि
क्षीणानां पुष्टिकारि स्फुटमतिकरणं वीर्य्यवृद्धिप्रदायि ॥

(3)

Gold (and silver also, to a certain extent) increases vitality, fortune, beauty, intelligence, and memory. It destroys all sorts of diseases, pacifies the evil influences exerted on human beings by ghosts, is an aphrodisiac, and gives rise to happiness and nutrition. It cures diseases, prevents senility,

removes loss of memory and consciousness. It also removes thinness, develops the mind, and increases semen.

अशोधितस्य अमारितस्य च स्वर्णस्य दोषः ।

(१)

सौख्यं वीर्य्यं बलं हन्ति रोगवर्गं करोति च ।
अशुद्धं न मृतं स्वर्णं तस्मादेतत् प्रयत्नतः ।
शोधयेन् मारयेत् प्राज्ञः द्रव्यान्तरवियोजितम् ॥

Evil effects of taking gold, not properly purified and killed (incinerated).

Gold, not properly purified and incinerated, destroys, if taken internally, health, semen, and strength, and gives rise to various diseases. It should, therefore, be stript of alloy, purified, and killed.

अथ स्वर्णस्य शोधनम् ।

प्रथमो विधिः ।

कर्षप्रमाणं तु सुवर्णपत्रं शरावरुद्धं पटुधातुयुक्तम् । *
अङ्गारसंस्थं प्रहरार्द्धमानं ध्मानेन तत् स्यान्ननु पूर्णवर्णम् ॥

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* पटुधातुःपांशुजलवणम् ।

Purification of gold. *

First process.

Pure mineral gold which has got only 14 colours, becomes absolutely pure and assumes 16 colours, if it is mixed with pansu lavana (or salt prepared from ashes of plantain, etc.), and heated over charcoal fire for one and half hour.

द्वितीयो विधिः ।

स्वर्णताराररताम्रायःपत्राण्यग्नौ प्रतापयेत् ।
निषिञ्चेत् तत्ततप्तानि तैले तक्रे गवां जले ॥
काञ्जिके च कुलत्थानां कषाये सप्तधा पृथक् ।
एवं स्वर्णादिलोहानां विशुद्धिः संप्रजायते ॥

Second process.

Leaves of gold, silver, brass, copper, and iron are purified, if they are heated over fire and immersed, while still hot, into oil, butter milk, milk, kanji, and decoction of kulattha, for seven times each, separately.

तृतीयो विधिः ।

तप्तानि सर्व्वलोहानि कदलीमूलवारिणि ।
सप्तधाभिनिषिक्तानि शुद्धिमायान्त्यनुत्तमाम् ।

* The term "purification" of a metal, as used in this book, does not mean to purify it physically, but to purify it medicinally, No metal which is physically impure should be used in medicines, except, of course, the mixed metals.

Third process.

All sorts of metals are purified, if they are heated for seven times, and immersed each time in the juice of the root of a banana plant.

चतुर्थो विधिः ।

मृत्तिकामातुलुङ्गाम्लैर्भावितं पञ्चवासरान् ।
मृद्भस्मलवणैर्हेम पुटनाच्छुद्धिमाप्नुयात् ॥

Fourth process.

Gold is purified, if subjected to putam with burnt mud and salt, after having been previously subjected to bhavana for five times with mud and juice of matulunga.

पञ्चमो विधिः ।

वल्मीकमृत्तिका भस्म गैरिकं चेष्टका पटु । *
इत्येता मृत्तिकाः पञ्च जम्वीरैरारनालकैः ॥
पिष्ट्वा ताभिः स्वर्णपत्रं लेप्यं पुटेन शुध्यति ॥
धारयेत् स्वर्णपत्रं तु त्रिदिनं पञ्चमृत्तिकाम् ॥

Fifth process.

The pancha mrittika (*i. e.* brick, red ochre, salt derived from ashes, soil raised by white ants, and ashes, see page 302, Vol I) are to be rubbed with lime juice and aranala and made into a paste with which is to be coated the surfaces of gold leaves

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* प्रथमखण्डे ३०२ पृष्ठं द्रष्टव्यम् । भस्मेत्येतस्य स्थले धूममिति पाठान्तरं द्रष्टव्यम् । अत्र धूममिति धूममृत्तिका कृष्णमृत्तिकेति ज्ञेया ।

which are next to be subjected to putam after three days. Gold is thus purified.

षष्ठो विधिः ।

भावयेन् मातुलुङ्गाम्लैः त्रिदिनं पञ्चमृत्तिकाः ।
सैन्धवं भूमिभस्मापि तेन स्वर्णं विशुध्यति ॥

Sixth process.

Gold is purified, if heated, as in the preceding process, after having been coated with the pancha mrittika, previously subjected to bhavana for three days with the juice of matulunga, rock salt, and burnt mud.

सप्तमो विधिः ।

वह्निना विद्रुतं स्वर्णमुत्तमं निक्षिपेत् त्रिशः ।
काञ्चनारद्रवे शुद्धं जायते तेन काञ्चनम् ॥

Seventh process.

Pure gold is to be melted in fire and immersed in the juice of kanchanara. The process is to be performed thrice, resulting in the (medicinal) purification of the gold.

स्वर्णस्य मारणम् ।

धातूनां मारणे पारदस्य आवश्यकता ।

(१)

लोहानां मारणं श्रेष्ठं सर्व्वेषां रसभस्मना ।
मूलीभिर्मध्यमं प्राहुः कनिष्ठं गन्धकादिभिः ॥
अरिलोहेन लोहस्य मारणं दुर्गुणप्रदम् ॥

Incineration of gold.

(1)

Importance of mercury in the killing of metals.

The killing of a metal with the help of incinerated mercury is the best. That with the help of vegetable drugs is the next in efficacy; that with the help of sulphur, etc. is still less efficacious; whereas that with the help of a metal having antagonistic properties is positively injurious.

(२)

पारदेन विना लोहं निहतं जनयेद्ध्रुवम्।
उदरे भोक्तुः कीटानि रसज्ञानामिदं मतम्॥

(2)

Worms grow in the abdomen of the man who takes metals killed without the help of mercury.

(३)

सिद्धलक्ष्मीश्वरप्रोक्तप्रक्रियाकुशलो भिषक्।
लोहानां सरसं भस्म सर्व्वोत्कृष्टं प्रकल्पयेत्॥ *

(3)

The physicians who are experts in the performance of processes explained by Siddha Lakshmiswara have no doubt that the ashes of metals containing mercury are the best that can be prepared. †

* चतुर्थो विधि र्द्रष्टव्यः।

‡ See the fourth process.

प्रथमो विधिः ।

कन्टकवेध्यपत्राणि सुवर्णस्य विलेपयेत् ।
लुङ्गाम्बुभस्मसूतेन मारयेद् दशभिः पुटैः ॥

First process.

Leaves of gold, so thin as to be pierced through by acacia thorns, are to be smeared with a paste made of incinerated mercury, rubbed with the juice of matulunga, and then subjected to putam. The process, performed for ten times, will lead to the incineration of the gold,

द्वितीयो विधिः ।

द्रुते विनिक्षिपेत् स्वर्णे लोहमानं मृतं रसम् ।
विचूर्णाथ लुङ्गतोयेन दरदेन समन्वितम् ।
जायते कुङ्कमच्छायं स्वर्णं द्वादशभिः पुटैः ॥

Second process.

Gold is to be melted over fire and mixed with an equal quantity of incinerated mercury. The amalgam, thus prepared, is then to be powdered, rubbed with the juice of matulunga and cinnabar, and then subjected to putam. Twelve such putams will result in the reduction of the gold to ashes of the colour of saffron.

तृतीयो विधिः ।

हेम्नः पादं मृतं सूतं पिष्टमम्लेन केनचित् ।
पत्रे लिप्त्वा पुटैः पश्चादष्टभिर्म्रियते ध्रुवम् ॥

Third process.

Gold leaves are reduced to ashes, if they are smeared with one-fourth their weight of incinerated mercury, rubbed with a non-mineral acid and subjected to putam for eight times.

चतुर्थो विधिः ।

सूतकाद् द्विगुणं गन्धं दत्वा कृत्वा च कज्जलीम् ।
द्वयोः समं लोहचूर्णं मर्दयेत् कन्यकाद्रवैः ॥
याममुग्मं ततः पिण्डं कृत्वा ताम्रस्य पात्रके ।
घर्म्मे धृत्वोरुवकस्य पत्रैराच्छादयेद् बुधः ॥
यामार्द्धेनोष्णता भूयात् धान्यराशौ न्यसेत् ततः ।
दत्वोपरि शरावं तु त्रिदिनान्ते समुद्धरेत् ॥
पिष्ट्वा च गालयेद् वस्त्रादेवं वारितरं भवेत् ।
एवं सर्व्वाणि लोहानि स्वर्णादीन्यपि मारयेत् ॥
रसमिश्राश्चतुर्यामं स्वर्णाद्याः सप्तधातवः ।
म्रियन्ते सिकतायन्त्रे गन्धकैरमृताधिकाः ॥
गन्धैः समं सकृद् द्विस्त्रिः पच्यन्ते वा फलेच्छया ।
षड् गुणादिश्च गन्धोऽत्र गुणाधिक्याय जार्य्यते ॥

Fourth process.

All the metals may be reduced to ashes in the following way :—One part of mercury and two parts of sulphur are to be rubbed into kajjvali (black powder), and then mixed with three parts of the

metal (meant to be reduced to ashes) and rubbed for six hours with the juice of kanya. The whole thing is then to be made into a ball, wrapped up with eranda leaves, kept in a copper pot, and exposed to the sun for half an hour till the ball grows hot. It is then to be kept inside a heap of rice for three days, covered with an earthen basin. On the fourth day, the lump is to be powdered very fine, and sifted through a piece of cloth. This powder will be found to be so light as to float on the surface of water.

Gold and the six other metals become very efficacious, if killed in a Baluka Jantram, mixed with mercury and sulphur. The metal gains in efficacy, if incinerated with two to six times its weight of sulphur.

पञ्चमो विधिः ।

सूतं द्विगुणगन्धकमम्लेन कज्ज्वलीकृतम् ।
द्वयोः समीकृतं स्वर्णं सर्व्वमम्लेन मर्द्दयेत् ॥
शरावसंपुटान्तःस्थमूर्द्ध्वाधः सैन्धवान्वितम् ।
अष्टयाम्या भवेद् भस्म सर्वयोगेषु योजयेत् ॥

Fifth process.

Mercury with twice its weight of sulphur is to be rubbed together with a vegetable acid and made into a black powder which again is to be rubbed in the same manner with thin gold leaves, equal in quantity to the mercury and sulphur combined, and made into a lump. The whole thing is then to be covered with rock salt, put below and upon it, and confined within a

samputam, which is to be heated for 24 hours resulting in the incineration of the gold, which may now be used for all purposes.

षष्ठो विधिः।

शुद्धं हेम श्लक्ष्णपत्रीकृतं तद्वारं वारं सूतगन्धानुलिप्तम्।
तीव्रे वह्नौ कांचनारे हलिन्यां ज्वालामुख्यां सम्पुटे भस्म कुर्य्यात्॥

Sixth process.

Purified gold leaves are to be smeared again and again with mercury and sulphur (made into a black powder and saturated with a sour vegetable juice). They are then to be immersed in the juice of kanchanara, langali, and jwala-mukhi, and confined within a samputam which is then to be subjected to heat resulting in the incineration of the gold.

सप्तमो विधिः।

शुद्धसूतसमं स्वर्णं खल्वे कृत्वा तु गोलकम्।
ऊर्द्ध्वाधो गन्धकं दत्त्वा सर्व्वतुल्यं निरुध्य च॥
त्रिंशद्वनोपलैर्देयं पुटान्येवं चतुर्द्दश।
निरुत्थं जायते भस्म गन्धो देयः पुनः पुनः॥

Seventh process.

Purified mercury and an equal quantity of thin gold leaves, cut into pieces, are to be rubbed together

and made into a lump, which is to be confined in a samputam with double its quantity of sulphur, put on all sides of the lump. The samputam is then to be subjected to heat by fire made of 30 pieces of cow-dung balls found dried in the pasturage. The process is to be performed for 14 times leading to the incineration of the gold.

अष्टमो विधिः ।

सुशुद्धं पारदं दत्त्वा कुर्य्यात् स्वर्णं तु पिष्टिकाम् ।
दत्त्वोर्द्ध्वाधो नागचूर्णं पुटेन मार्य्यते ध्रुवम् ॥

Eighth process.

Gold leaves are to be rubbed with purified mercury and made into a ball which is to be covered on all sides with powdered lead and then subjected to putam which causes the incineration.

नवमो विधिः ।

रसस्य भस्मना वाऽथ रसेनालिप्य व दलम् ।
हिंगुहिंगुलसिन्दूरशिलाः साम्येन मेलयेत् ॥
संमर्द्य काञ्चनद्रावैर्दिनं कृत्वाऽथ गोलकम् ।
तद्भाण्डस्य तले दत्त्वा भस्मना पूरयेद् दृढम् ॥
अग्निं प्रज्वालयेद् गाढं द्विनिशं स्वांगशीतलम् ।
उद्धृत्य सावशेषं चेत् पुनर्देयं पुटद्वयम् ॥
अनेन विधिना स्वर्णं निरुत्थं जायते मृतम् ॥

Ninth process.

Gold leaves, smeared with mercury or ashes of mercury, are to be rubbed for one day with the juice of kanchana and an equal quantity of hingu, hingula, sindura, and manas-shila, and made into a ball which is to be kept at the bottom of a vessel, the remaining parts of which are to be filled with ashes. The vessel is then to be subjected to putam for two times and opened only when cooled of itself. If, on opening the vessel, a part of the ball is found to be still un-incinerated, it is again to be subjected to putam for two times. In this way gold is reduced to ashes which can not be restored to the original state.

काञ्चनस्य प्रकारेण लांगली हन्ति काञ्चनम् ।
ज्वालामुखी तथा हन्यात् तथा हन्ति मनःशिला ॥

In the foregoing process for incineration of gold, each of langali, jwalamukhi, and manas-shila may be used as a substitute for kanchana.

दशमो विधिः ।

समसूतेन वै पिष्टिं कृत्वाग्नौ नाशयेद् रसम् ।
स्वर्णं तत्समताम्र्येन पुटितं भस्म जायते ॥

Tenth process.

Gold and an equal quantity of mercury are to be rubbed together and made into a lump, which is to be heated by fire causing the disappearance of the mercury from the lump. The gold is then to be mixed with an equal quantity of copper and subjected to putam leading to the incineration of the gold.

एकादशो विधिः ।

हेमपत्राणि सूक्ष्माणि जम्भाम्भोनागभस्मना ।
लेपतः पुटयोगेन त्रिवारं भस्मतां नयेत् ॥
पुनः पुटेत् त्रिवारं तत् म्लेच्छेन नागहानये ॥

Eleventh process.

Thin leaves of gold are to be smeared with incinerated lead rubbed with lemon juice and subjected to putam. This process is to be performed for three times. The ashes, thus prepared, are to be deprived of the lead, if they are again rubbed with hingula and subjected to putam for three times.

द्वादशो विधिः ।

मार्कवरससंपिष्टसौवीराञ्जनलेपितम् ।
स्वर्णपत्रं भवेद्भस्म गजाख्येन पुटेन हि ॥

Twelfth process.

Gold leaves, smeared with sauvira anjanam, previously rubbed with the juice of bhringaraja, are reduced to ashes, if subjected to Gaja putam.

त्रयोदशो विधिः ।

स्वर्णमावर्त्तंच तोलैकं माषैकं शुद्धसीसकम् ।
क्षिप्त्वा चाम्लेन संचूर्ण्य तत्तुल्यौ गन्धमाक्षिकौ ॥
अम्लेन मर्दयेद् यामं रुद्ध्वा लघुपुटे पचेत् ।
गन्धः पुनः पुनर्देयो म्रियते दशभिः पुटैः ॥

Thirteenth process.

One tola of gold and one masha ($\frac{1}{16}$th of a tola) of purified lead are to be melted and rolled together with some sour vegetable juice and then powdered. This powder, with an equal quantity of sulphur and swarna makshika, are to be rubbed for three hours with a sour vegetable juice, and subjected to laghu puta [illegible] ten times, fresh quantity of sulphur being added every time. Gold is incinerated in this way.

चतुर्द्दशो विधिः ।

शिलासिन्दूरयोश्चूर्णं समयोरर्कदुग्धतः ।
सप्तधा भावयित्वा तु शोषयेच्च पुनः पुनः ॥
ततस्तु गलिते हेम्नि कल्कोऽयं दीयते समः ।
पुनर्धमेद् निनरां यथा कल्को विलीयते ।
एवं वारत्रयं कल्के दत्ते हेममृतिर्भवेत् ॥

Fourteenth process.

Powdered manas-shila and red vermilion are to be subjected to bhavana with an equal quantity of the [illegible] arka. This powder is to be thrown into an [illegible] quantity of melted gold which is to be heated [illegible] such a way as to let the powder disappear [illegible]. If the process is repeated for three times, [illegible] will be incinerated.

पञ्चदशो विधिः ।

माक्षिकं नागचूर्णञ्च पिष्टमर्करसेन तु ।
हेमपत्रपुटेनैव म्रियते त्तणमात्रतः ॥

Fifteenth process.

Leaves of gold are incinerated very soon, if smeared with powdered makshika and lead, rubbed together with the milk of arka.

षोड़शो विधिः ।

स्वर्णार्द्धं पारदं दत्वा कुर्य्याद् यत्नेन पीठिकाम् ।
दत्वोर्द्ध्वाधो नागचूर्णं पुटनान् म्रियते ध्रुवम् ॥

Sixteenth process.

Gold leaves, cut into pieces, with half their weight of mercury are to be rubbed together and made into a lump, which is reduced to ashes, if subjected to putam after having been confined in a samputam with powdered lead put below and upon the lump.

सप्तदशो विधिः ।

नागचूर्णं शिलावज्रीक्षीरेण परियोजितम् ।
तेन लिप्तं सुवर्णञ्च कल्केन म्रियते पुटात् ॥

Seventeenth process.

Gold is incinerated, if smeared with powdered lead and manas-shila, rubbed with the milk of bajri, and then subjected to putam.

अष्टादशो विधिः ।

मृतं नागं स्नूहीक्षीरैरथवाम्लेन केनचित् ।
पिष्ट्वा लेप्यं स्वर्णपत्रं रुद्ध्वा गजपुटे पचेत् ॥

आदाय पेषयेदम्लैर्भूनागं चाष्टमांशकम्।
बद्ध्वा गजपुटे पचेत् पूर्व्वनागयुतं हि तत्॥
एवं पुनः पुनः पाकादष्टधा म्रियते ध्रुवम्॥

Eighteenth process.

Gold leaves are to be smeared with incinerated lead rubbed with the milk of snuhi or some sour vagetable juice, and then heated by Gajaputam. It is then to be smeared with one eighth its quantity of earth-worms rubbed with some sour vagetable juice, and again subjected to heat by Gajaputam. Performance of this process for eight times will result In the incineration of the gold leaves.

ऊनविंशो विधिः।

शुद्धसूतं समं गन्धं माक्षिकञ्च महाम्लकैः।
मर्द्दयेत् लेपयेत् तेन स्वर्णपत्रं प्रयत्नतः॥
अष्टाभिश्च पुटैर्हेम म्रियते नात्र संशयः॥

Nineteenth process.

Gold leaves are to be smeared with purified mercury, an equal quantity of sulphur, and the same quantity of makshika, all rubbed with a strong non-metallic acid. They are then to be subjected to heat by Gajaputam. Eight such putams will cause the incineration of the leaves.

विंशो विधिः ।

स्वर्णस्य द्विगुणं सूतं याममम्लेन मर्दयेत् ।
ऊर्द्ध्वाधो माक्षिकं पिष्टा मूषायां स्वर्णतुल्यकम् ॥
तत्पृष्ठे मर्दितं हेम तत्पृष्ठे हेममाक्षिकम् ।
देयं स्वर्णसमं तच्च पृष्ठे गन्धं च तत्समम् ॥
षड्वारं चूर्णितं दत्वा रुद्ध्वा मूषां धमेद् दृढम् ।
स्वभावशीतलं ग्राह्यं तद् भस्म भागपञ्चकम् ॥
टंकणं श्वेतकाचञ्च भागैकञ्च प्रयोजयेत् ।
त्रितयं मधुनाज्येन मिलितं गोलकीकृतम् ॥
धान्याभ्रकस्य भागैकमधश्चोर्द्ध्वञ्च दापयेत् ।
निरुध्य तद् धमेद् गाढ़ं मूषायां घटिकाद्वयम् ।
निरुत्थं जायते भस्म तत्तद्योगेषु योजयेत् ॥

Twentieth process.

Gold leaves with double their quantity of mercury are to be rubbed together for three hours with a sour vegetable juice. Swarna makshikam, equal in quantity to gold, is to be similarly rubbed. Half the quantity of this is to be put at the bottom of the crucible. Upon this is to be placed the gold leaves rubbed with mercury, upon which is to be kept the remaining half of the swarna-makshikam. Next is to be put powdered sulphur, equal in quantity to the gold. The crucible is then to be closed and heated steadily for some time. It is then to be broken open and a fresh quantity of sulphur of the same weight,

as before, is again to be put, and the crucible closed and heated as before. Sulphur is thus to be put for six times in all.

Five parts of these ashes and one part each of tankanam and white glass are to be rubbed with honey and ghee and made into a lump. This is to be confined within a samputam with one part of dhany-abhraka put below and upon the lump. The crucible is then to be closed and heated for two ghatis with the result that the ashes of gold attain a state of incineration in which it is physically imposaible to restore them to their original state (*i. e.* the state of gold).

एकविंशो विधिः।

राजवृक्षरसेनापि भल्लातैष्टंकणेन च।
लिप्त्वा स्वर्णस्य पत्रञ्च रुद्ध्वा गजपुटे पचेत्।
तैर्द्रवैश्च पुनः पिष्टं म्रियते सप्तधा पुटैः॥

Twenty-first process.

Gold leaves are to be smeared with the juice of aragbadha, bhallataka, and tankana, all rubbed together, and then subjected to Gajaputam. The process is to be performed for seven times leading to the incineration of the gold leaves.

स्वर्णभस्मानुपानम्।

(१)

मत्स्यपित्तस्य योगेन स्वर्णं तत्कालदाहजित्।
भृङ्गयोगाच्च तद्वृष्यं दुग्धयोगाद् बलप्रदम्॥

पुनर्नवायुतं नेत्रंच घृतयोगे रसायनम्।
स्मृत्यादिकृद् वचायोगात् कान्तिकृत् कुङ्कुमेन च॥
पयसा राजयक्ष्मघ्नं निर्विष्या च विषं हरेत्।
शुण्ठीलवङ्गमरिचैस्त्रिदोषोन्मादनाशकृत्॥

Accompaniments of gold.

(1)

Incinerated gold cures inflammation of the body, if taken with the bile of fish. It is nutritive, if taken with the juice of bhringaraja. It serves as a tonic, if taken with milk. It improves eye-sight, if taken with the juice of punarnava ; serves as a rasayanam, if taken with clarified butter ; improves memory, if taken with bacha ; improves beauty, if taken with saffron ; cures phthisis, if taken with milk ; removes poison, if taken with nirbishi (visalyakarani). It also cures insanity due to the three doshas, if taken with shunthi, lavanga, and maricha.

(२)

एतद्भस्म सुवर्णजं कटुघृतोपेतं द्विगुञ्जोन्मितं
लीढ़ं हन्ति नृणां क्षयाग्निसदनं श्वासञ्च कासारुचिम्।
ओजोधातुविबर्द्धनं बलकरं पाण्ड्वामयध्वंसनं
पथ्यं सर्व्वविषापहं गरहरं दुष्टग्रहण्यादिनुत्॥

(2)

Incinerated gold, when taken with powdered maricha and ghee (clarified butter), in doses of two ractis a day, cures phthisis, loss of appetite, asthma,

nausea, jaundice, chronic diarrhoea, and all kinds of poison. It increases vitality, strength, and is an excellent tonic.

स्वर्णद्रुतिः।

(१)

मण्डूकास्थिवसाटङ्कहयमारेन्द्रगोपकैः।
प्रतिवापेन कनकं सुचिरं तिष्ठति द्रुतम्॥

(1)

Gold remains in liquid state, for a very long time, if mixed with bone and fat of frog, borax, karabi (saliva of horse, according to another version), and an insect called indragopa.

(२)

चूर्णं सुरेन्द्रगोपानां देवदालीफलद्रवैः।
भावितं सुदृशं हेम करोति जलवद्द्रुतम्॥

(2)

The insect called Indragopa, duly powdered and subjected to bhavana with the juice of devadali fruit turns gold into water-like liquid, very nice to look at.

अथ रौप्यम्।

रौप्यन्तु रजतं शुभ्रं वसुश्रेष्ठं रुधिरकम्।
चन्द्रलोहं महाशुभ्रं श्वेतकं तप्तरूपकम्॥

चन्द्रभूतिः सितं तारं रूप्यकं चन्द्रहासकम् ।
अकुप्यं खर्ज्जुरं राजरङ्गं दुर्व्वर्णकं तथा ॥
श्वेतं च रङ्गबीजं च लोहराजं तथैव च ।
गुरु स्निग्धं मृदु श्वेतं दाहे च्छेदे घनक्षमम् ॥
शङ्खाभं मसृणं स्वच्छं निस्फोटं रजतं शुभम् ॥

Roupya (Silver).

The best silver has the following characteristics. It is heavy, soothing, mild, white when melted, malleable, white as conch shell, smooth, glossy, and free from cracks.

दुष्ट रजतम् ।

दाहे रक्तश्च पीतश्च कृष्णं रुक्षं स्फुटं लघु ।
स्थूलाङ्गं कर्कशाङ्गञ्च रजतं त्याज्यमष्टधा ॥

Silver of eight kinds are to be rejected ; viz. that which is red. yellow, or black, when heated ; and that which is coarse, brittle, light, stiff, and rough.

रजतस्य भेदाः ।

सहजं खनिसंजातं कृत्रिमं त्रिविधं मतम् ।
रजतं पूर्व्वपूर्व्वं हि स्वगुणैरुत्तरोत्तरम् ॥

Variety of silver.

Silver is of three different kinds, viz, (1) that which is as old as the earth (2) that which grows in mines, and (3) artificial, that is, silver prepared from base metals.

(१) सहजरौप्यम्।

कैलासाद्यद्रिसम्भूतं सहजं रजतं भवेत्।
तत्स्पृष्टं हि सकृद् व्याधिनाशनं देहिनां भवेत्॥

(1) Silver which is as old as the earth.

Silver of this description is to be found in kailash and some other mountains. Such a silver cures diseases by mere touch only.

(२) खनिजरौप्यम्।

हिमाचलकूटादिषु यद्रूप्यं जायते हि तत्।
खनिजं कथ्यते तज्ज्ञैः परमं तद् रसायनम्॥

(2) Silver growing in mines.

The silver which grows in mines found in the peaks of the Himalayas and in other places is called mineral silver. Such a silver is a good curer and preventer of senility.

(३) कृत्रिमं रौप्यम्।

रसेन्द्रवेधजं रौप्यं कृत्रिमं कथ्यते बुधैः।
वङ्गादेर्जायते तत्तु सर्व्वरोगविनाशकृत्॥

(3) Artificial silver.

Artificial silver is the one which is nothing but tin, copper, or lead, transformed into silver by mercury (for processes of such transformation, see vol. I). It cures all sorts of diseases, if applied properly.

रौप्यस्य गुणाः।

(१)

रूप्यं विपाकमधुरं तुवराम्लसारं
शीतं सरं परमलेखनकञ्च रुच्यम्।
स्निग्धं च वातकफजिज्जठराग्निदीपि
बल्यं परं स्थिरवयःकरणञ्च मेध्यम्॥

Qualities of silver.

(1)

Silver is astringent and sour in taste, but it turns sweet, when digested in the stomach. It is cool, laxative, reducer of fat, increaser of appetite, soothing, pacifier of vayu and kapha, and increaser of the digesting heat in the stomach. It strengthens the body, retains youth, and increases memory.

(२)

रौप्यं शीतं कषायाम्लं पित्तवातहरं गुरु।
रसायनविधानेन सर्वरोगापहारकम्॥

(2)

Silver is cool, astringent, sour, pacifier of pittam and vayu, and heavy in point of digestion. It cures all the diseases, if taken in accordance with the regulations prescribed for taking of medicines efficacious in curing and preventing senile decay.

रौप्यं शोधनीयं मारयितव्यञ्च ।

आयुः शुक्रं बलं हन्ति तापविड्बन्धरोगकृत् ।
अशुद्धं न मृतं तारं शुद्धं मार्य्यमतो बुधैः ॥

Silver is to be purified and incinerated.

Silver, not properly purified and incinerated, impairs longevity, semen, and strength. It gives rise to inflammation and constipation. It should therefore be purified and incinerated.

रौप्यस्य शोधनम् ।

प्रथमो विधिः ।

तैले तक्रे गवां मूत्रे ह्यारनाले कुलत्थजे ।
क्रमान्निषेचयेत् तप्तं द्रावे द्रावे तु सप्तधा ॥
स्वर्णादिलोहपत्राणां शुद्धिरेषा प्रशस्यते ॥

Purification of silver.

First Process.

Leaves of gold and the other metals are best purified if they are heated and immersed, while still hot, seven times, in each of the following liquids, respectively :—oil, butter milk, cow's urine, aranala, and decoction of kulattha.

द्वितीयो विधिः ।

नागेन टंकणेनैव वापितं शुद्धिमृच्छति ।
तारं त्रिवारं निक्षिप्तं तैले ज्योतिष्मतीभवे ॥

Second process.

Silver is purified, if it is melted for three times with a little of lead and broax thrown upon it, and then immersed each time in the oil obtained from the fruits of jyotismati.

तृतीयो विधिः ।

खर्परे भस्मचूर्णाभ्यां परितः पालिकां चरेत् ।
तत्र रूप्यं विनिक्षिप्य समसीससमन्वितम् ॥
जातसीसक्षयं यावद् धमेत् तावत् पुनः पुनः ।
इत्थं संशोधितं रूप्यं योजनीयं रसादिषु ॥

Third process.

The central portion of an earthen pot is to be enclosed by means of a mortar made of ashes and lime. Inside this enclosure is to be kept silver and an equal quantity of lead. The vessel is then to be heated until the lead is burnt and consumed altogether, leaving the silver pure and free from alloys.

चतुर्थो विधिः ।

पत्रीकृतं तु रजतं सन्तप्तं जातवेदसि ।
निर्वापितमगस्त्यस्य रसे वारत्रयं शुचि ॥

Fourth process.

Leaves of silver are purified, if they are heated for three times and immersed in the juice of agastya, each time it is so heated.

पञ्चमो विधिः।

रौप्यं शुद्धं समादाय नागमुख्यं तु शोधयेत्।
शुद्धे तारे पुनस्तस्य सूक्ष्मपत्राणि कारयेत्॥
तानि चिञ्चिणिद्राक्षाभिः शोधयेच्च पृथक् पृथक्।
एवं संजायते रौप्यं विशेषेण सुशोधितम्॥

Fifth process.

Physically pure silver is to be purified (medicinally) by means of lead, etc. (see process II and III, above). It is then to be made into fine leaves which are to be heated and immersed in the juices of tamarind and raisins.

रौप्यस्य मारणम्।

प्रथमो विधिः।

लकुचद्रवसूताभ्यां तारपिष्टिं प्रकल्पयेत्।
ऊर्द्ध्वाधो गन्धकं दत्त्वा मूषामध्ये निरुध्य च॥
स्वेदयेद् वालुकायन्त्रे दिनमेकं दृढाग्निना।
स्वाङ्गशीताञ्च तां पिष्टिं साम्लतालेन मर्दिताम्।
पुटेद् द्वादशवारेण भस्मीभवति रूप्यकम्॥

Incineration of silver.

First process.

Mercury and purified silver leaves, cut into pieces, are to be rubbed together, with the juices of lakucha, and made into a lump which is to be put into a cruci-

ble with powdered sulphur put above and below the lump. The crucible is to be heated in a Baluka Jantram for one day by means of a steady fire. When cooled of itself, the lump is to be rubbed with haritala and a sour vegetable juice, and then subjected to putam for twelve times which will result in the incineration of the silver.

द्वितीयो विधिः ।

माक्षिकचूर्णलुङ्गाम्लमर्दितं पुटितं शनैः ।
त्रिंशद्वारेण रौप्यकं भस्मसाज् जायते ध्रुवम् ॥

Second process.

Silver is to be rubbed with powdered makshika and juice of matulunga and subjected to putam. Performance of this process for thirty times will lead to the incineration of silver.

तृतीयो विधिः ।

भावितेन स्नुहीक्षीरैः ताप्येन लेपयेत् सितम् ।
पत्राकारं पुटेत् तच्च निरुत्थं जायते हि तत् ॥

Third process.

Leaves of copper are to be smeared with a paste made of makshika, previously subjected to bhavana with the milk of snuhi. They are then to be subjected to putam resulting in the reduction of the leaves to such ashes as cannot be restored to their original condition.

चतुर्थो विधिः।

पादांशं तारपत्राणां तालकं हि विशोधितम्।
संमर्द्य जम्बीरद्रावैः पत्राणि तानि लेपयेत्॥
शोषयेदन्धयन्त्रे च त्रिंशदुपलकैः पचेत्।
चतुर्दशपुटैरेवं निरुत्थं जायते ध्रुवम्॥

Fourth process.

Four parts of purified silver leaves and one part of purified haritalam are to be rubbed together with lime juice and dried. They are then to be confined within a blind crucible and subjected to putam by means of fire made of 30 pieces of cowdung cakes. Performance of this process for fourteen times will effect the incineration of the silver leaves.

पञ्चमो विधिः।

माक्षिकं गन्धकञ्चैव रविक्षीरेण मर्दयेत्।
तेन लिप्तं रूप्यपत्रं पुटेन म्रियते ध्रुवम्॥

Fifth process.

Leaves of silver are to be smeared with makshika and sulphur rubbed with the milk of arka. They are then to be dried and subjected to putam which will reduce the leaves to ashes

षष्ठो विधिः।

भूधात्री माक्षिकं तुल्यं पिप्पली सैन्धवाम्लकैः।
लिप्त्वा तारस्य पत्राणि रुद्ध्वा गजपुटे पचेत्।
एवं पुनः पुनः पिष्ट्वा मार्य्यते नात्र संशयः॥

Sixth process.

Leaves of silver are incinerated, if they are smeared with a paste made of bhumi-amalaki, makshika, pippali, saindhava, and amla, all equal in quantity, and subjected to putam, the process being repeated as many times as necessary.

सप्तमो विधिः ।

रौप्यपत्रे चतुर्भागे भागैकं मृतवङ्गकम् ।
अथवा गन्धतालकं लेप्यं जम्बीरपेषितम् ॥
रुद्ध्वा तत् त्रिपुटैः पचेत् पञ्चविंशवनोत्पलैः ।
म्रियते नात्र सन्देहो गन्धो देयो पुटे पुटे ॥

Seventh process.

"Four parts of silver leaves are to be smeared with one part of incinerated tin (or the same quantity of sulphur and orpiment, mixed together in equal quantities), rubbed with lime juice. They are then to be dried and subjected to putam by means of fire made of 25 pieces of cowdung cakes. The process is to be performed for three times resulting in the incineration of the leaves. Powdered sulphur is to be put on all sides of the leaves every time they are subjected to putam.

अष्टमो विधिः ।

रसगन्धौ समौ कृत्वा काकतुण्डस्य मूलकम् ।
मर्दयेन् महिषक्षीरैः पिष्टा तं क्षालयेज् जलैः ॥

हरिद्रागोलके क्षिप्त्वा गोलं हयपुरीषके ।
तं गोलमुद्धरेत् क्षिप्त्वा दिवसानेकविंशतिम् ॥
तत्पिष्टतारपत्राणि लेप्यान्यम्लेन केनचित् ।
विंशत्या च पुटैर्भस्म जायते नात्र संशयः ॥

Eighth process.

Mercury and sulphur, equal in quantity, and root of kakatunda are to be rubbed with buffalo's milk and dissolved with water. The solution is to be rubbed with turmeric and made into a ball which is to be kept inside a heap of horsedung for twenty one days. The leaves are then to be smeared with a paste made of the ball rubbed with some sour vegetable juice, and then subjected to putam for 20 times which will cause the reduction of the leaves to ashes.

नवमो विधिः ।

विधाय पिष्टिं सूतेन रजतस्याथ मेलयेत् ।
तालं गन्धं समं पश्चान् मर्दयेन् निम्बुकद्रवैः ।
द्वित्रपुटैर्भवेद्भस्म योज्यमेवं रसादिषु ॥

Ninth process.

Silver leaves are to be made into a lump by means of mercury. This is then to be rubbed with haritala and sulphur by means of lime juice, and then subjected to putam for two or three times. This will result in the incineration of silver.

दशमो विधिः ।

भागैकं तालकं मर्द्दय याममम्लेन केनचित् ।
तेन भागत्रयं तारपत्राणि परिलेपयेत् ॥
धृत्वा मूषापुटे रुद्ध्वा पुटेत् त्रिंशद्वनोपलैः ।
समुद्धृत्य पुनस्तालं दत्वा रुद्ध्वा पुटे पचेत् ॥
एवं चतुर्दशपुटैस्तारं भस्म प्रजायते ॥

Tenth process.

Three parts of silver leaves are to be smeared with one part of haritala, previously rubbed for three hours with some sour vegetable juice, and then subjected to putam, by means of thirty pieces of cowdung balls found dried in pasturage. The process is to be performed for fourteen times before the silver is reduced to ashes.

भस्मना चाम्लपिष्टेन मेलयेत् तालकं पुटैः ।
जायते तद्विधानेन सर्व्वरोगापहारकम् ॥

Ashes of silver are to be rubbed with purified haritala by means of a sour vegetable juice and then subjected to putam. The powder, thus prepared, cures all sorts of diseases.

एकादशो विधिः ।

शुकप्रिये पीतकपत्रकल्के चतुर्गुणे तारकमेव रुद्ध्वा ।
शरावके संपुटकं पुटेच्च त्रिभिः पुटैरेव वराहसंज्ञैः ॥

Eleventh process.

Silver is incinerated, if immersed in a solution of four times its weight of haritala, dissolved with the juice of pomegranates, and subjected to Baraha putam for three times.

रौप्यभस्मनः प्रयोगः ।

(१)

भस्मीभूतं रजतममलं तत्समं व्योमभानुः ।
सर्व्वैस्तुल्यं त्रिकटु सवरं सारघाज्येन युक्तम् ॥
लीढं प्रातः क्षपयति नृणां यक्ष्मपाण्डूदरार्शान् ।
श्वासान् कासान् नयनतिमिरं पित्तरोगानशेषान् ॥

Uses of incinerated silver.

(1)

Purified and incinerated silver cures phthisis, anaemia, udara-roga, piles, asthma, cough, loss of eye-sight, and all sorts of diseases due to an abnormal excess of pittam, if it is taken every morning (in doses of one racti a day) with an equal quantity of incinerated mica and copper, combined with powdered trikatu and triphala, equal in quantity to the three combined—all of these rubbed with sufficient quantity of clarified butter and honey.

(२)

शोधितं मारितं रौप्यं यथाविधि क्रियाविदा ।
सितया हन्ति दाहाद्यं वातपित्तं फलत्रिकैः ॥
त्रिसुगन्ध्या प्रमेहादि गुल्म क्षारसमन्वितम् ॥

कासं कफं वृषस्य च रसे त्रिकटुकान्वितम् ।
भार्गीविश्वयुतं श्वासं क्षयजित् सशिलाजतु ॥
क्षीणे मांसरसे देयं दुग्धे वा धीमता सदा ।
यकृत्प्लीहहरं प्रोक्तं वरापिप्पलीसंयुतम् ॥
पुनर्नवायुतं शोफे पाण्डौ मण्डूरसंयुतम् ।
वलिपलितहं कान्तिक्षुत्करं घृतसंयुतम् ॥

(2)

Silver, duly purified and incinerated, cures inflammation, etc, if taken with sugar ; it cures an abnormal excess of vayu and pittam, if taken with the triphala ; it cures gonorrhea, if taken with the trisugandhi (guratwak, ela, and patrakam) ; it cures gulma, if taken with kshara ; it cures cough, and excess of phlegm, if taken with the juice of basaka and trikatu ; it cures asthma, if taken with bhargi and shunthi ; it cures consumption, if taken with shilajatu ; it cures thinness, if taken with meat juice or milk ; it cures enlargement of the spleen and the liver, if taken with triphala and pippali ; it cures dropsy, if taken with punarnava ; it cures anemia, if taken with oxidised iron of at least 60 years standing, duly purified and incinerated ; it cures senile decay, and also increases beauty and appetite, if taken with clarified butter.

रौप्य द्रुतिः ।

शतधा नरमूत्रेण भावयेद् देवदालिकाम् ।
तच्चूर्णवापमात्रेण द्रुतिः स्यात् स्वर्णतारयोः ॥ *

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* सप्तधा इत्येतत् पाठान्तरम् ।

Liquefaction of silver.

Gold and silver turn into liquid (without the application of heat), as soon as a little of devadali fruit, powdered finely, and subjected to bhavana for one hundred times *, is thrown upon the metal.

अथ ताम्रम् ।

ताम्रमौन्दूवरं शुल्बमुन्दूवरमपि स्मृतम् ।
रविप्रियं म्लेच्छमुखं सूर्य्यपर्य्यायनामकम् ॥
उडुम्बरं वरिष्ठश्च द्विष्टं कणीयसं तथा ।
औदुम्बरं मदम्बरमौडुम्बरं रविप्रियम् ॥
राजीवं रक्तधातुश्च मुनिपित्तलमम्बकम् ।
कमलाह्वं तथा ज्ञेयं सूर्य्येष्टं लोहितायसम् ॥
म्लेच्छं नैपालकं चेति तयोर्नैपालमुत्तमम् ।
नेपालादन्यखन्युत्थं म्लेच्छमित्यभिधीयते ॥

Tamra (copper).

Copper is of two kinds, viz. that which is found in Nepal, and that which is found elsewhere. The copper found in Nepal is the better of the two. The second kind of copper is known by the name of "mlechha" copper.

सुस्निग्धं मृदुलं शोणं घनघातक्षमं गुरु ।
निर्विकारं गुणश्रेष्ठं ताम्रं नैपालमुच्यते ॥

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* Seven times, according to another version.

सिताकृष्णारुणच्छायमतिवामि कठोरकम् ।
क्षालितं च पुनः कृष्णमेतत् म्लेच्छकताम्रकम् ॥

Copper of the first kind is very smooth, soft, red, malleable, heavy, incapable of losing its properties by the application of heat, and has excellent properties. Copper of the second class (*i. e.*, mlechha copper) is red with white or black tints, is hard, causes vomiting in excess, and assumes a black appearance even when washed off.

निकृष्टताम्रस्य लक्षणम् ।

पाण्डुरं कृष्णशोणञ्च लघु स्फुटनसंयुतम् ।
रुक्षाङ्गं सदलं ताम्रं नेष्यते रसकर्मणि ॥

Characteristics of bad copper.

The copper which is pale, blackish red, light, full of cracks, coarse, and consists of layers should not be used in mercurial operations and medicines.

उत्कृष्टताम्रस्य लक्षणम् ।

जवाकुसुमसंकाशं स्निग्धं मृदु घनक्षमम् ।
लोहनागोज्झितं ताम्रं मारणाय प्रशस्यते ॥
ग्राह्यं ताम्रं हि नैपालं म्लेच्छमपि मलैर्हीनम् ।
तदभावे ग्रहीतव्यं तुथ्थसत्त्वं क्रियाविदा ॥

Characteristics of good copper.

Good copper is red as jaba flower ; is soft and soothing, malleable, and free from iron and lead ;

such a copper should be used for incineration. For the purpose of incineration, Nepal copper is to be used. Other copper may also be used, if properly freed from alloy. In the absence of absolutely pure copper, the expert physician should make use of the essence of tutthaka (this essence being no other than absolutely pure copper).

ताम्रस्य गुणाः ।

ताम्रं कषायं मधुरञ्च तिक्तमम्लञ्च पाके कटु
सारकञ्च ।
पित्तापहं श्लेष्महरञ्च शीतं तद्रोपणं स्याल्लघु
लेखनञ्च ॥
पाण्डूदराशोज्वरकुष्ठकासश्वासक्षयान् पीनस-
मम्लपित्तम् ।
शोथं क्रिमिं शूलमपाकरोति मेदोविषं नेत्रगदं
निहन्ति ॥

Properties of copper.

Copper is astringent, sweet and bitter, but sour and pungent, when digested in the stomach. It is a purgative. It pacifies pittam and phlegm, is cool, heals boils, carbuncles, etc., is light, and cures obesity ; it also cures the following diseases :—anemia, udara, piles, fever, leprosy, cough, asthma, phthisis, pinasa, dyspepsia with acidity, dropsy, worms, colic, obesity, poison, and eye diseases.

शोधनमारणहीनताम्रस्य दोषः ।

अशुद्धं न मृतं ताम्रं कान्त्यायुर्बलवीर्य्यहृत् ।
वान्तिमूर्च्छाभ्रमोत्क्लेदभेददं कुष्ठशूलकृत् ॥

Evil properties of copper, not duly purified and incinerated.

Copper, not duly purified and incinerated, impairs longevity, beauty, semen, and strength. It also gives rise to vomiting, loss of consciousness, nausea, leprosy, and colic.

ताम्रस्य शोधनम् ।

प्रथमो विधिः ।

ताम्रं क्षाराम्लसंयुक्तं द्रावितं दत्तगैरिकम् ।
निक्षिप्तं महिषीतक्रे सप्तधा छगणाग्निना ॥
पञ्चदोषविनिर्मुक्तं सप्तवारेण जायते ॥

Purification of copper.
First process.

Copper is purified and freed from the five defects referred to above, if it is melted with ksharas, amlas, and gairikam by means of a fire of cowdung cakes, and then immersed in butter milk prepared out of buffalo's milk, the process being performed for seven times.

द्वितीयो विधिः ।

ताम्रनिर्मलपत्राणि लिप्त्वा निम्बूवम्बुसिन्धुना ।
ध्मात्वा सौवीरकक्षेपाद्व विशुध्यत्यष्टवारतः ॥

Second process.

Leaves of copper, freed from alloys, are purified medicinally, if they are smeared with rock salt, rubbed with lime juice, heated, and then immersed into gruel made of barley, the process being performed for eight times.

तृतीयो विधिः ।

निम्बूवम्बुपटुलिप्तानि तापितान्यष्टवारकम् ।
विशुध्यन्त्यर्कपत्राणि निर्गुण्डीरसमज्जनात् ॥

Third process.

Leaves of copper are purified, if they are smeared with lime juice mixed with saltpetre, heated, and then immersed in the juice of nirgundi, the process being performed for eight times.

चतुर्थो विधिः ।

गोमूत्रेण पचेद् यामं ताम्रपत्रं दृढाग्निना ।
शुध्यति नात्र सन्देहो ततोऽयं मार्य्यते खलु ॥

Fourth process.

Copper leaves are purified, if they are boiled with cow's urine for three hours on a strong fire.



पञ्चमो विधिः ।

स्वर्णताराारताम्राणां पत्राण्यग्नौ प्रतापयेत् ।
निषिञ्चेत् तप्ततप्तानि तैले तक्रे च काञ्जिके ॥
गोमूत्रे च कुलत्थानां कषाये च त्रिधा त्रिधा ।
एवं स्वर्णादिलोहानां विशुद्धिः संप्रजायते ॥

Fifth process.

See process two page 242.

षष्ठो विधिः ।

स्नुह्यर्कक्षीरलवणकाञ्जिकैस्ताम्रपत्रकम् ।
लिप्त्वा प्रताप्य निर्गुण्डीरसैः सिञ्चेत् पुनः पुनः ॥
द्वादशवारदाहाच्च लेपनात् ताम्रसेचनात् ।
खटिकालवणं तक्रैरारनालैश्च पेषयेत् ॥
तेन लिप्त्वा ताम्रपत्रं तप्तं तप्तं निषेचयेत् ।
षड्वारमम्लपिष्टायां निर्गुण्ड्यां च विशुद्धये ॥

Sixth process.

Copper leaves are to be heated and immersed in the juice of nirgundi, after having been smeared with the milks of snuhi and arka, salt, and kanji. The process is to be repeated for 12 times. The leaves are then to be smeared again with chalk, and salt, rubbed with butter milk, heated, and while still hot, to be immersed in the juice of nirgundi, rubbed with a sour vegetable juice. This last process is to be performed for six times. This is how copper is urified.

ताम्रस्य मारणम् ।

प्रथमो विधिः ।

जम्बीररससंपिष्टरसगन्धकलेपितम् ।
शुल्बपत्रं शरावस्थं त्रिपुटैर्याति पञ्चताम् ॥

Incineration of copper.

First process.

Copper leaves are incinerated, if they are smeared with mercury and sulphur, rubbed with lime juice, and then heated by putam, the process being performed three times.

द्वितीयो विधिः ।

ताम्रपत्राणि सूक्ष्माणि गोमूत्रे पञ्चयामकम् ।
क्षिप्त्वा रसेन भाण्डे तद्द्विगुणं देहि गन्धकम् ॥
अम्लपर्णी प्रपिष्टाऽथ मर्दिता देया ताम्रके ।
सम्यङ् निरुध्य भाण्डं तमग्निं ज्वालय यामकम् ।
भस्मीभवति ताम्रं तद् यथेष्टं विनियोजयेत् ॥

Second process.

Thin leaves of copper are to be kept immersed in cow's urine for 15 hours in an earthen vessel. After the lapse of that period, mercury, equal in quantity to the copper, and sulphur, double the quantity of the same, are to be put into that vessel, containing cow's urine. Changeri leaves, duly rubbed, are also

to be put upon the copper leaves. The mouth of the vessel is then to be closed tightly and heat applied underneath. Heating the vessel for three hours will lead to the incineration of the copper which may now be used for all purposes.

तृतीयो विधिः ।

(सोमनाथताम्रम्) ।

शुल्वतुल्येन सूतेन बलिना तत्समेन च ।
तदर्धांशेन तालेन शिलया च तदर्धया ॥
विधाय कज्ज्वलीं श्लक्ष्णां भिन्नकज्ज्वलसन्निभाम् ।
यन्त्राध्यायविनिर्दिष्टगर्भयन्त्रोदरान्तरे ॥
कज्ज्वलीं ताम्रपत्राणि पर्य्यायेन विनिक्षिपेत् ।
प्रपचेद् यामपर्य्यन्तं स्वांगशीतं विचूर्णयेत् ॥
तत्तद् रोगहरानुपानसहितं ताम्रं द्विवल्लोन्मितम्
संलीढं परिणामशूलमुदरं शूलञ्च पाण्डुज्वरम् ।
गुल्मप्लीहयकृत्क्षयाग्निसदनं मेहञ्च मूलामयम्
दुष्टां च ग्रहणीं हरेद् ध्रुवमिदं तत्सोमनाथा-
भिधम् ॥

Third process.

(Somanatha tamram).

A fine and black powder is to be prepared by rubbing together four parts of mercury, four parts of sulphur, two parts of orpiment, and one part of manas-shila. This black powder and copper

leaves, equal in quantity to the mercury, are to be put in layers inside a Garbha Jantram (see page 258, vol. I) and heated for three hours. When cooled of itself, the leaves are to be powdered. The ashes, thus prepared, cure colic, udara roga, anemia, fever, gulma, enlargement of spleen and liver, phthisis, loss of digesting power, gonorrhoea, piles, and chronic and obstinate diarrhœa, if taken with suitable anupanam, in doses of 6 ractis a day. This copper is called Somanatha Tamram.

चतुर्थो विधिः।

सूताद् द्विगुणितं ताम्रपत्रं कन्यारसैः प्लुतम्।
पिष्ट्वा तुल्येन बलिना भाण्डमध्ये विनिक्षिपेत्॥
छन्नं शरावकेणैतत्तदूर्द्ध्वं लवणं क्षिपेत्।
मुखे शरावकं दत्त्वा वह्निं यामचतुष्टयम्॥
अवचूर्ण्यैव तच्छुल्वं वल्लमात्रं प्रयोजयेत्।
पिप्पलीमधुना सार्द्धं सर्व्वरोगेषु योजयेत्॥
श्वासं कासं क्षयं पाण्डुमग्निमान्द्यमरोचकम्।
गुल्मप्लीहयकृन् मूर्च्छाशूलोदरार्शमूर्द्ध्वजम्॥
दोषत्रयसमुद्भूतानामयान् जयति ध्रुवम्।
रोगानुपानसहितं जयेद्धातुगतं ज्वरम्।
रसे रसायने चैव योजयेद् युक्तमात्रया॥

Fourth process.

Mercury with an equal quantity of sulphur, and copper leaves, double the quantity of mercury, are to

be rubbed together with the juice of kanya and kept in an earthen vessel. The amalgam, thus prepared, is to be covered by means of an earthen basin placed inside the vessel, the remaining portion of the vessel being filled with salt. The vessel is then to be covered closely by means of another earthen basin placed at the mouth. The vessel is now to be heated for 12 hours resulting in the incineration of the copper leaves which are now to be powdered very fine and used in all sorts of diseases, in doses of three ractis a day, taken with honey and pippali. It is especially efficacious in gulma, enlargement of the spleen and liver, hysteria, colic, udara roga, piles, and diseases relating to the head. It also cures fever affecting the seven dhatus (*i. e.*, liquid essence of food digested, blood, semen, flesh, bone, fat, and marrow), if used with suitable anupanam. It may be used in medicines as well as in mercurial operations.

पञ्चमो विधिः ।

अर्कतालम् ।

अर्केण सहितं तालं निम्बूत्थेन सुपेषितम् ।
भसितं पुटपाकेन हन्ति प्रियाङ्गजं ध्रुवम् ॥
दुष्टव्रणं क्षतं सर्व्वं भगन्दरञ्च नाशयेत् ।
रक्तयर्धेन प्रदातव्यं घृतेन सह धीमता ॥

Fifth process.

(Arka-talam).

Copper and haritalam rubbed with lime juice and subjected to putam will cause the incineration of the

metal. The ashes, thus prepared, cure syphilis, boils, and other diseases due to an excess of kapha and pittam.

षष्ठो विधिः।

पलानि पञ्च शुद्धानि ताम्रपत्राणि बुद्धिमान्।
गृहीत्वा योजयेत् तत्र तदर्धं शुद्धपारदम्॥
मर्दयेन् निम्बुकद्रावैस्त्रिदिनान्युभयं भिषक्।
ताम्रपत्रैः समं शुद्धं गन्धकं तत्र निःक्षिपेत्॥
मर्दयित्वा घटीयुग्मं काचकूप्यां निधापयेत्।
यामानष्टौ पचेदग्नौ स्वांगशीतलमुद्धरेत्॥
एष ताम्रेश्वरो हन्यात् कुष्ठादीनखिलान् गदान्।
धातुपुष्टिकरश्चैव सूतिकारोगनाशनः॥

Sixth process.

Twenty tolas of purified copper and half its quantity of mercury are to be rubbed together for three days with lime juice. Purified sulphur, equal in quantity to the copper leaves, is then to be rubbed for two hours, with the copper and mercury. The whole thing is then to be put into a glass bottle and heated (by means of a Baluka Jantram *) for twenty four hours. When cooled of itself, the contents of the bottle are to be powdered. This powder is the king of copper ashes. It cures leprosy, sutika, and all sorts of diseases. It increases the dhatus.

* See page 259, Vol. I.

सप्तमो विधिः ।

तिलपर्णिरसैस्ताम्रपत्राणि परिलेपयेत् ।
शुभ्रवर्णं भवेद्‌ भस्म नात्र कार्य्या विचारणा ॥

Seventh process.

Copper leaves, smeared with the juice of tilaparni plant, are reduced to ashes of white colour, if burnt by putam.

अष्टमो विधिः ।

शुद्धार्कपत्रं च रसार्द्धलिप्तं द्विभागगन्धान्वित-
दुग्धिकाम्बु ।
स्तृतं ततो भस्मपुटैर्दिनैकं तदाशु मृत्युं समुपैति
ताम्रम् ॥

Eighth process.

Purified copper leaves, half its quantity of mercury and twice its weight of sulphur are to be rubbed with the juice of dugdhika, and then subjected to putam for one day resulting in the incineration of copper.

नवमो विधिः ।

जम्बीररसमर्दितं कज्ज्वलीं यत्नतो भिषक् ।
पत्रे लिम्पेत् कण्टवेध्ये म्रियते ताम्रमातपे ॥

Ninth process.

Copper leaves, as thin as can be pierced through by means of thorns, are incinerated, if they are smeared with kajvali (mercury and sulphur rubbed

into a black powder), rubbed with lime juice, and then exposed to the sun.

दशमो विधिः ।

गन्धेन ताम्रतुल्येन ह्यम्लपिष्टेन लेपयेत् ।
कण्टवेध्यं रवेः पत्रं शोषयित्वा पुटे पचेत् ॥
उद्धृत्य चूर्णयेत् तस्मिन् पादांशगन्धकं क्षिपेत् ।
जम्बीरैरारनालैर्वा मृगदूर्व्वोद्भवद्रवैः ॥
पिष्ट्वा पिष्ट्वा पचेत् तद्वत् सगन्धश्च चतुःपुटैः ।
मातुलुङ्गरसैः पिष्ट्वा पुटमेकं प्रदापयेत् ।
अनेनैव विधानेन ताम्रं भस्म भवेद् ध्रुवम् ॥

Tenth process.

Copper leaves, as thin as can be pierced through by means of thorns, are to be smeared with an equal quantity of sulphur, previously rubbed with some sour vegetable juice. They are then to be dried and subjected to putam, and then powdered. The powder is now to be mixed with one-fourth its quantity of sulphur and rubbed with the juice of lime fruit or of mriga durba, and then to be subjected to putam. The last process is to be performed for four times, after which the powder is to be rubbed with the juice of matulunga and subjected to putam. This is how copper is reduced to ashes.

एकादशो विधिः ।

ताम्रस्य द्विगुणं सूतं जम्बीराम्लेन मर्दयेत् ।
सितशर्करयाप्येवं पुटत्रयान् मृतं भवेत् ॥

Eleventh process.

Copper leaves are to be rubbed with double their quantity of mercury, rubbed with lime juice and sugar-candy, and then subjected to putam. Three such putams will bring about the incineration of the copper.

द्वादशो विधिः ।

पाषाणभेदिमत्स्याक्षीद्रवैर्द्विगुणगन्धकैः ।
ताम्रस्य लेपयेत् पत्रं रुद्ध्वा गजपुटे पचेत् ॥
सप्तांशेन पुनर्गन्धं दत्वा द्रावैश्च पेषयेत् ।
एवं सप्तपुटैः पक्वं ताम्रं भस्म भवेद् ध्रुवम् ॥

Twelfth process.

Copper leaves are to be smeared with double their quantity of sulphur, rubbed with the juices of pashana bhedi and matsyakshi and then heated by Gaja putam. The copper is then to be rubbed again with one seventh its weight of sulphur, rubbed with the juice mentioned above and subjected to putam. Seven such putams will result in the incineration of the copper.

त्रयोदशो विधिः ।

ताम्रञ्च द्विगुणं सूतं जम्बीराम्लेन मर्दयेत् ।
आदौ मूषान्तरे क्षिप्त्वा धूस्तुरस्य तु पत्रकम् ॥
ततपृष्ठे ताम्रतुल्यं तु गन्धकं चूर्णितं क्षिपेत् ।
ततपृष्ठे मर्दितं ताम्रं पूर्ववत्तुल्यं तु गन्धकम् ॥
आच्छाद्य धूस्तुरापत्रै रुद्ध्वा गजपुटे पचेत् ॥
स्वांगशीतञ्च तच्चूर्णं भस्मीभवति निश्चितम् ॥

Thirteenth process.

Copper leaves and double their quantity of mercury are to be rubbed with lime juice and kept inside a crucible, covered with dhuttura leaves, upon which are to be put powdered sulphur, equal in quantity to the copper. Upon the sulphur is again to be put copper leaves, rubbed as before, and dhuttura leaves and sulphur to be put as before. The whole thing is now to be covered with dhuttura leaves, and the crucible, duly closed, is to be subjected to heat by Gaja putam. When cooled of itself, the copper is to be powdered and will be found to be in a state of incineration.

मृतताम्रस्यामृतीकरणम् ।

शोधितं मारितं ताम्रमम्लरसेन मर्द्दयेत् ।
तद्गोलं शूरणस्यान्ता रुद्ध्वा सर्व्वत्र लेपयेत् ॥
शुष्कं गजपुटे पाच्यं सर्व्वदोषहरं भवेत् ।
वान्तिं भ्रान्तिं विरेकञ्च न करोति कदाचन ॥

Nectarization of incinerated copper.

Copper, duly purified and incinerated, is to be rubbed with a sour vegetable juice and made into a ball which is to bo confined inside a tuber of shuranam. This tuber is to be plastered all over with mud and dried. It is next to be subjected to heat by Gaja-putam. Thus prepared, the copper will be freed from all defects—it will no longer give rise to vomiting, giddiness, purgation, etc.

ताम्रभस्मप्रयोगः ।

(१)

शाल्मलीरससंयुक्तं घृतमाक्षिकमर्द्दितम् ।
रक्तिकं ताम्रजं भस्म षण्मासं सेवयेत् सुधीः ॥

दुग्धं खण्डमनुपानमनम्लं साज्यभोजनम् ।
वीर्य्यं पुष्टिस्तथा कान्तिर्दिव्या दृष्टिश्च जायते ॥

Use of incinerated copper,

(1)

Incinerated copper should be taken for six months at a stretch with honey, juice of shalmali, and ghee in doses of one racti a day. The diet, in this case, should be milk, sugar, and rice or bread with ghee, without any sour thing at all. Such a treatment results in the increase of semen, nutrition, beauty, and eye sight of the person who takes the medicine.

(२)

केवलं भसितं ताम्रं शृङ्गवेररसैः सह ।
द्विगुञ्जं भक्षयेत् प्रातः सर्व्वोदरविनाशनम् ॥

(2)

Incinerated copper rubbed with honey and ginger juice, taken in the morning, in doses of two ractis a day, cures all sorts of udara-roga.

त्वदनुज्ञानुवृत्त्या मे यत्कार्य्यं साधितं शिवे ।
त्वदंघ्रिकमले न्यस्तं तदेव तव प्रीतये ॥

इति सिद्धवैद्यश्रीभूदेवदेवशर्म्मविरचितरसजलनिधिनाम-
महाग्रन्थस्य द्वितीयखण्डं समाप्तम् ।

GLOSSARY.

Page 6.

Swallowing of mica by mercury—For processes, see pages 76—99, vol. I. The mercury which swallows a metal does not increase in weight, if the act of swallowing is perfect.

Page 7.

Kalakuta poison—A highly poisonous tree having a black and round tuber, the very odour of which is reported to cause death. See vol. III.

Kanji—See Glossary, vol. I.

Page 8.

Triphala—See Glossary, Vol. I, and Appendix.

Page 9

Bhavana—See Glossary, vol. I.

Page 17.

Panchamitram—See page 45.

Page 28.

Prastha—See page 311, vol. I.

Page 30.

Khandaguda—Molasses subjected to heat, purified, and solidified.

Page 36.

THEORY OF BAYU (VAYU) PITTAM, AND KAPHA.

Everyone of us is aware of the universal law of gravitation by which material bodies have a tendency to move towards the centre of the earth, which it is not feasible for them to reach as they cannot pierce into the hard surface which presents a serious obstacle to their downward passage. All material substances are thus necessarily attracted towards the earth, being unable to rise up in the air from its surface. It is, however, seen that many of them are not immoveably fixed to the earth and can move about on its surface as men and animals do. Inanimate things which are light in weight can be moved hither and thither by the force of wind, while things

that are heavy remain attached to the earth with comparative steadiness ; even these can possibly be moved from one place to another in many cases. Why is this so ? If all material bodies have an irresistible tendency to move towards the centre of the earth, how can it be possible for them to move about or be driven from one place to another. The answer is that it is the existence of wind and air which makes such movement possible. Air is perpetually in motion, and, permeating through every substance on the surface of the earth, imparts the power of movement to it. If there were no air, all things would have been immoveably fixed to the surface of the earth without any power to move at all. There is hardly any place in this world which is devoid of air, which exists even in stone, iron, and other hard substances. All substances are composed of minute particles, called atoms, which adhere together in such a way as to admit of some vacant space, however small, between them, which varies in different substances and which is to be found even in iron, stone, human system, and in a mass of water as well. It is through these fine spaces that air enters into all things. In hard substances, this intervening space is very little, and the quantity of air that enters through it is hardly perceptible.

What has been said above makes it abundantly clear that air enters into all substances in the world and makes them moveable. The greater the quantity of air in a substance, the more capable it is of movement. Air enters into the human system and renders it fit for loco-motion. Not only does it enter through the nostrils and the mouth, it also finds access into the human body through infinitely small openings between its molecules which are finer than the pores of the skin and are countless in number. It penetrates deep into the blood, flesh, and bones ; and it is this which causes the blood to circulate through the veins and arteries in all parts of the body. Blood may flow down from the brain to the extremities or it may rush to the head from the feet in a contrary direction. The first phenomenon may be due to gravitation but the second can never take place without the agency of air. We all speak of circulation of blood but we do not perhaps know how this is caused. The primary and only cause of this circulation of blood is the constant presence of air which enters into every part of our body and sets the entire organism in motion. It is present everywhere and pervades the

bones, the flesh, the blood, and even the minutest parts of our body. If you apply heat to any part of your body, blood takes its course in that direction, and on the other hand, if you apply cold to any part, the blood tends to flow away from that part. Vayu or air is the cause of this movement. If heat is applied to any part of the body, the air in that part becomes lighter and expands by the action of heat and some portion of the air shifts to other parts. The vacuum thus caused is filled by the flow of blood from other parts i.e., blood rushes in from other parts to take the place of the displaced air. There is thus a ceaseless movement going on within the body. An application of cold on the other hand produces an opposite effect. When any part of the body becomes cold the other parts of it become comparatively warm ; hence a portion of the blood from the former rushes to the warmer parts.

From this it is clear that without air we could not live, nor could there be any circulation in the system. Vayu or air is therefore one of the main conditions of life, nay, it constitutes a primary ingredient of animal organism. The various organic functions, such as breathing, discharge of excreta, circulation, exercise will power, and energy are carried on through its instrumentality.

Air, though forming one of the chief constituents of the human body, acts prejudicially on it when it finds its way into the system in an abnormal quantity. When it exceeds the quantity required to stimulate circulation, the flesh, bones, marrow, etc. dry up and become contracted under its pressure. The greater the quantity of air generated in the system, the more heavily will it press upon blood, bones, etc. Allopaths now-a-days speak of blood-pressure which is probably nothing but the pressure of air upon blood. It cannot strictly be called blood-pressure, for it does not press upon blood alone, but on flesh, bones, marrow and other parts of the body as well.

Pittam (animal heat).

The solar system is the fountain and source of all heat, and all things in this world derive heat from the sun, This warmth which is present every-where in a more or less degree, cannot be felt by the touch in all cases. If the heat of any substance exceeds the normal temperature of our body, we say that it is heated ; if it be less, we say that it is cold. The constituents of animal organism

i. e. blood, flesh etc., possess a natural warmth which is termed pittam without which life would have been unsupportable. Like air, it forms one of the vital constituents of our body.

But an abrormal increase of animal heat vitiates our blood and brings on that state or condition of our body which is usually termed bilious complication or derangement due to excess of animal heat. This disorder gives rise to endless diseases. On the other hand, an unnatural decrease of bodily warmth is no less attended with danger. As excess or preponderance of pittam gives rise to diseases, abnormal increase or decrease of the same may even bring about death. Health and long life may be ensured by maintaining the internal heat of the body in a normal condition.

Kapha (Phlegm).

It has been said that the function of air in the body is to produce dryness or, in other words, to absorb moisture from it while that of pittam is to generate heat or warmth in it. The things which constitute our body are rendered dry by air and warm by pittam, but dryness and warmth are not the only attributes of human organism which is also characterised by the quality of coldness or tenderness without which life would have been impossible. Besides dryness and heat, all the constituents of human body possess softness which is present in the blood, bones, flesh, and other vital parts. The general name for this all pervading softness is phlegm, which is present in different parts of the body in various forms, and performs diverse functions. If there is excess of the phlegm over what is necessary for the sustenance of life, various diseases may develop ; on the other hand, if it unduly decreases, it may be attended with serious and baneful consequences. Total loss of phlegm as well as an abnormal excess of the same may even lead to death. The same remarks may be made with regard to *Vayu* or air and *Pittam* or animal heat. Abnormal preponderance of these three vital elements is as dangerous and baneful as their abnormal decrease or loss.

Effects of Vayu, Pittam, and Phlegm.

The following symptoms usually develop when wind (vayu) is unduly in excess in our body :—Pain in the limbs, prostration, scanty evacuation of urine and stools, contraction of the arteries, nerves, etc. thirst, shivering, roughness of the skin, astringent taste, dryness of the mouth, and high-coloured urine, etc.

When the animal heat is unduly in excess, the following symptoms appear :—burning sensation in the palm of the hands and feet, redness of the skin, generation of excessive heat in the system, promotion of digestion, sweating, etc.

Page 44.

Aranala—see Glossary, vol. I.

Tankanam—borax.

Bhavana—see Glossary, vol, I.

Kosthi Jantram—see pages 262—267, vol. I.

Page 46.

Ghee—clarified butter.

Patala kosthi—see page 264, vol. I.

Page 54.

Kanta iron—an oxide of iron of which load stone is a variety.—see vol. III, (in the Press).

Tikshna iron—steel.

Page 57.

Indragopa—a kind of insect, popularly known in India as mukhmuli insect.

Page 57.

Human Oil—It is human fat that can be obtained in a most cruel manner in the following way :—

A human hermaphrodite is to be fed for some time on an exceptionally nutritious food which serves to make the creature sufficiently fat. It is then to be flayed alive and hanged with its feet upwards and head downwards, kept suspended over an iron cauldron heated by a strong fire. When sufficiently heated, fat begins to come out of the body of the unfortunate creature and falls into the cauldron.

This fat is very efficacious in instantaneously healing up wounds and cuts in animal bodies. This is the oil which, according to tradition, the physician Asvini Kumara applied in joining a goat's head with the body of king Daksha who had been beheaded by his son-in-law, and thereby effected a resurrection of the dead man.

The awfully cruel manner in which the oil can be obtained can rarely induce a modern Hindu Chemist

to have recourse to the abominable process; Human oil Is therefore a thing of the past in India.

Page 58.

Sauvarchala salt or usharaka—saltpetre (sora).

Page 63.

Tubari—alum clay.

Page 65.

Udara roga—diseases in the belly. They are of six varieties, *viz.*, (1) Batodara—a disease which gives rise to wind in the belly (2) Jalodara—dropsy, (3) Plihodara—enlargement of the spleen, (4) Jakritodara—enlargement of the liver; (5) Baddhodara which causes chronic constipation, and (6) Mahodara—a disease which causes an abnormal derangement of all or almost all of the organs in the belly.

Page 70.

Takram—butter milk.

Page 74.

Kukkuta Putam—see page 296, vol. I.

Page 82.

Kankshi—Alum clay.

Kasisa—Green vitriol.

Page 83.

Vaikranta—corundum.

Page 93.

See treatment of Leprosy in Ashtangahridaya, etc.

Page 107.

Swarji—carbonate of soda.

Page 112.

Dola Jantram—see page 250, vol. I. Kharpara—calamine.

Page 122.

Kshari salt—saltpetre.

Page 129.

Racta-Gulma—Tumour arising out of mense blood.

Page 141.

Aratni—See Glossary, vol, I.

Page 146.

Racta pittam—hæmorrhage from the stomach through mouth, rectum, nostrils, penice, vagina or from the pores in the skin.

Page 149.

Vrana shukram—A deep-seated, round-shaped white spot inside the black part of the eyes causing an intense pain.

Shita pittam—erysipelas.

Udarda—erysipelas with fever, nausea, excess of phlegm, inflammation, etc.

Visarpa—erysipelas.

Page 162.

Malla musha—see page 291, vol. I.

Page 165.

Kavachi Jantram—The glass bottle referred to in Baluka Jantram. see page 259, vol. I.

Page 175.

Karsha or tola is equal to 180 grains (not 126 grains as stated wrongly in glossary of vol. I). see page 310, vol. I,

Page 182.

Bhagandara—fistula.

Page 186.

Labanam—salt.

Page 190.

Navasaram—sal-ammoniac

Page 209.

Rajavarta—Lapis Lazuli.

Page 210.

Udavarta—chronic constipation attended with various complications.

Page 215.

Vida—see page 81 and elsewhere, vol. I.

tola—a measure of weight equal to 180 grains.

Page 225.

Hingula—cinnabar.

Page 226.

Amla varga—see page 301, vol. I.

Page 228.

Dipta varga—

Pippali, pippalimula, chabya, chitraka, shunthi, maricha, gajapippali, renuka, ela. vana-jamani, indrajava, patha, jeera, sarshapa, mahanimba fruit, hingu, bhargi, madhurasa, atibisha, bacha, viranga, and katurohini.

Page 235.

Rasaka—calamine.

Haritala—Orpiment.

Manas shila—realgar.

Tuttham—sulphate of copper.

Ksharas—see page 299, vol. I.

Amlas—see " sour group" in page 301, vol. I.

tankanam—borax.

Page 251.

Sindura—red vermilion.

Page 252.

Gajaputam—see page 295, vol. I.

Page 253.

Laghu putam—an act of heating a putam (see footnote, page 294, vol. I.) by a light-fire made of a few pieces of cowdung cakes, put on all sides of the putam.

Page 254.

Makshika—pyrites.

Samputam or putam—see page 294, vol. I.

Non-metallic acid—"see sour group" in page 301, vol. I.

Page 271.

Baraha putam—See Page 296, vol. I,

Page 273.

Mlechha—foreign.

Page 283.

Sutika—fever and other ailments following child birth.

Page 284.

Ractis—One racti is equal in weight to $1\frac{7}{8}$ grain. See measures of weight in page 310, vol. I.

APPENDIX.

List of plants referred to at the foot-note of Glossary in Vol. I.

prepared by

UPENDRA NATH DUTTA.

APPENDIX.

List of Plants.

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
1	Agasti	Baka	Hatya-bakul	Agastya-hadga		Sesbana grandiflora
2	Agastya	Baka	Hatya-bakul	Agastya-hadga		Sesbana grandiflora
3	Aguru	Agura chandan	Agar	Sisbacha jhanti	Harugubu-chettu	Aquilaria agallocha
4	Agnikarni					
5	Agnimantha	Ganiari				Premna spinosa
6	Anjan					
7	Ankotaka	Ankora	Dhera			Alangium hexapetalum
8	Ankolla	(See No. 7)				
9	Ajakarna	Pial	Asan			Buchanaria latifolia
10	Ajamoda	Randhuni	Ajmad	Ajmoda	Baman	Pimpinella involucrata
11	Ajasringi	Merhasinghe				Convolvulus argentus
12	Ajaji	Kalajira	Jeera			Cuminum
13	Atarusha	Basak	Arusha	Arusha	Adhatarai	Justicia adhatoda
14	Atasi	Masina	Tisi		Nallay-gasichettu	Linum usitatissimum
15	Anantamula	Anantamul	Upalsari			Hemidismus Indicus
16	Aparajita	Aparajita	Bishnu Kranta		Bisnu Kranta	Clitorea ternatea
17	Apamarga	Apang	Latjira	Agharu	Uttareni	Achyrantes aspera
18	Ambastha	Nimuko			Pathchettu	Cissampelas hernandifolia

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
19	Amlabargas					
20	Amlabetasa	Thykol	Amaltas			Ruxem Vesicarius
21	Aragwadha	Sondal	Sonehali	Thoreba haba	Bella-chettu	Cassia fistula
22	Arka	Akanda	Madar	Rui	Jillettu-chettu	Calotropis gigantea
23	Arjuna	Arjun	Kahee	Arjun-saraha	Matti-chettu	Terminalia Arjuna
24	Ardha chandra	Krishna Tewri	Pithori	Tior	Sibdai	Convolvulus turpethum
25	Alambusha	Fulshola				
26	Asana	Piasal	Asan	Asna		Terminalia tomentosa
27	Aswagandha	Aswa-gandha	Asgandh	Asandh		Withania somnifera
28	Aswattha	Asoth	Pipar	Pingpal	Kulujubi-chettu	Ficus religiosa
29	Asthibhanga	Harjora	Horjori			Vitis quadrangularis
30	Asthisamhara	(See No. 30)				
31	Ahi	Nag-kesara	Kabab-chini		Nag-kesarlu	Mesua ferrea
32	Ahiphena	Afim	Aphim	Aphun	Abini	Papaver somniferum
33	Akshika	Anch				
34	Akuli					
35	Akhukarni	Indur-kani	Musa-kani	Bhopli		Salvinia cucullata
36	Akhuparni	(See No. 35)				
37	Adhaki	Arhar	Rahar			Cajanus Indicus
38	Amalaki	Amlaki	Amla	Anbul		Phyllanthus emblica
39	Ardraka	Ada	Adrak	Alu		Zingiber officinalis

B

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
40	Bandhuka	Bandhuli	Gogulia	Banduja	Maku-chette	Pentapetas phoenicia
41	Bandhujibaka	(See No. 40)				
42	Bandhya	Kankrola				A bitter sort of gourd

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
43	Bandhya-karkoti	(See No. 42)				
44	Babbura	Babla	Babul		Nala-tumma	Acacia arabica
45	Barbati	Barbati				Dolichos catjong
46	Barbura	(See No. 44)				
47	Bala	Bedela	Bijband		Pachi-togge	Sida cordifolia
48	Bakuchi	Someraji	Babchi	Bowchi		Psoralea corylifolia
49	Baluki	Bangi-kakur				
50	Bodhi	Pipul	Peepar	Pippuli	Pippali	Piper longum
51	Brahma-dandi	Bamun-dari		Brahma-danda		Lamprachoe-nium micro-cephalum
52	Brahmaputra	Chupri Alu	Geti	Barahi-kand		Dioscorea globosa
53	Brahmi	Brahmi	Baramabhi		Bimi	Herpestis monniferia
54	Baka	(See No. 1)				
55	Bakula	Bakul				Mimusops elengi
56	Bacha	Bach	Bach	Bekhonre	Barja	Acorus calamus
57	Bajrakanda	Sakar-kand				
58	Bajri	Narasij				Euphorbia - antiquorum
59	Bata	Bat	Bar	Bat	All	Ficus Bengalensis
60	Batsanabha	Mithabis	Mitha	Bach-nag	Basnabi	Aconitum ferox
61	Banabrin-taka					
62	Banashurana	Buno Ole				Wild variety of arum

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
63	Barbari	Babui Tulsi				Ocynum Pilosum
64	Banari	Alkushi	Goncha	Kuhiri	Kali	Macuna pruriens
65	Bayasi					Diospyros tomentosa
66	Barahikanda	(See No. 52)				
67	Bartakini					
68	Bartaku	Begun	Bhanta	Bange	Kuthire-kai	Solanum melongena
69	Basaka	Bakas	Arusha	Arusha	Arsar	Justicia adhatoda
70	Basa					
71	Bastu	Betosak		Chakbal		Chenopo-dium album
72	Bastuka	(See No. 71)				
73	Bijaya	Siddhi	Bhang			Canabis sativum
74	Bidanga	Bidanga	Babi-rang	Barbati	Baibi-long	Embelia ribes
75	Bidari	Bhui-kumra	Bilye-kand	Bhumi-kohole	Matta-paltig	Ipomoea digitata
76	Bidarikanda	(See No. 75)				
77	Bibhitaki	Bahera	Tinas	Behara	To-andi	Beleric myrobalan
78	Birekarka					
79	Bilba	Bel	Bel	Bel	Bilba	Aegle Mar-melos
80	Bishala					
81	Bisamusti	Ghora-nim	Bisdori			Melia azadi-rachta
82	Bisnukranta	(See No. 16)				
83	Bijapuraka	Taba Bijoura nebu				Citrus medica
84	Bijapura	(See No. 83)				
85	Briddhi					
86	Brintaka	(See No. 68)				
87	Brischikali	Bichuli	Bar-hanta	Brischi-kali	Kan-churi	Tragia involucrata

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
88	Brihati	Brihati	Bar-hanta	Dorli Bigni	Kuk-machi	Solanum Indicum
89	Betasa	Bet		Berisu	Jatmay-urkuli	Calamus rotong
90	Byaghrapadi	Bonch	Kantai	Gul-ghonta	Kanbegu Chettu	Flacourtia Ramonchi
91	Byaghri-kanda					
92	Branaghni	(Smaller 'Karabella')				
93	Bhanga	(See No. 73)				
94	Bhadramusta	Nagar-mutha				Cyperus Pertenuis
95	Bhadramusta	See No. 94				
96	Bhallataka	Bhela	Bhilaba	Bih	Sankot-tai	Semecarpus anacardium
97	Bhabya	Chalta				Dillania Indica
98	Bhargi	Bamun-hati	Barangi	Bhangi	Bhant-marangi	Cleroden-dron Sipho-nanthus
99	Bhukadamba					Celsea Coro-mandeline
100	Bhunimba	Chirata	Chiraita	Chiryta		Gentiana Chiraita
101	Bhumikush-manda	(See No. 75)				
102	Bhumia-malaki	Bhui-amala	Bhadra-angbara	Bhuang-beli		Flacourtia Cataphracta
103	Bhurja	Bhurji-patra				Betula bhoj patra
104	Bhusirisa					
105	Bhringaraja	Bhimraj	Bhangra	Pibalmaka		Verbesina Calendulacea
106	Bhendapatri					

C

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
107	Chakra-marda	Chakan-da	Chakhar	Tarbata	Khudru-bisesmu	Cassia tora

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
108	Chanaka	Chhola	Chana			Cicer arietinum
109	Chandali		Panch-gunia			
111	Chandan	Chandana				Sirium myrtifolium
112	Chapala					
113	Chabya	Chai				Piper Chata
114	Chabika	See No. 113				
115	Changeri	Amrul	Chow-patia	Ambabati		Rhumex vesicarus
116	Chaturjata					
117	Chikkana	Supari				Areca catechu
118	Chinchika	Tentul	Imli	Imli		Tamarindas Indicus
119	Chinchini	(See No. 118)				
120	Chitraka	Cheeta	Chita	Chitrak	Chitra-mul	Plumbago Zeylanica
121	Chukra	See No. 115				
122	Chukrika	See No. 115				

D

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
123	Darima	Dalima	Anar	Darim	Darimm-chettu	Punica granatum
124	Danti	Danti	Hakum	Danti	Danti-chettu	Croton polyandrum
125	Darbi, Darbika	Gojia	Gori			Elephantopas scaber
	Dashamula	The root of				
126	(a) Bilba	Bel	Bel			Aegle mermelos
127	(b) Shonyak	Sonagach	Arlu	Tentu	Pan	Bignonia Indica
128	(c) Gambhari	Gamar		Sibani	Gambhari	Gmelina arbora
129	(d) Parul					Bignonia suaveolens

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
130	(e) Ganikerika	Ganiari				Premna serratifolia
131	(f) Shalparni	Salpani	Saribau	Salaban		Hidysarum gangeticum
132	(g) Prishni-parni	Chakula	Pithban	Sebara	Kolaku-ponna	Doodia lago-podioides
133	(h) Kantakari	Kanti-kari	Kanti-ragini			Solanum Jaquinii
134	(i) Bribati	(See No. 88)				
135	(j) Gokshura	Gok-shura	Gok-shura sal			Tribulus terrestris
136	Daruharidra	Daru-haridra	Daru-haldi		Marman-jil	Berberis asiatica
137	Dugdhika	Chote-khirye		Dudhi		Asclepias rosea
138	Durba	Durba	Dubba		Arugam-pulla	Panicum Dactylon
139	Debdaru	Debdaru	Debdar			Pinus deo-dara
140	Debadali	Deotara	Sonaya	Debdali	Danran-gari	Andropogon seratus
141	Draksha	Kismis	Angur	Draksha	Draksha-pondu	Vitis vinifera
142	Dronapushpi	Ghol-ghoshe	Guma	Kumba	Enuge-tugmi	Leucas lini-folia
143	Dhattura	Dhutura	Dhutra	Dhattur	Karumte	Datura fas-tuosa
144	Dhanya	Dhonai	Dhania		Kotmalli	Coriandram Sativum
145	Dhaba	Dhowa	Dhau	Dhamora	Narinja chetter	Conocarpus latifolia
146	Dhataki	Dhyeful	Dhabsi	Dhaiti	Jargi	Woodfordia floribunda
147	Dhatri	See No. 39				
148	Dhanya	Dhan				Oryza sativa
149	Dhustura	See No. 143				

E

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
150	Eranda	Veranda	Rerhi		Amid-puchittu	Ricinus communis

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu	Botanical.
151	Ela	Elach	Elachi	Elachi	Eluchettu	Eletaria cardamomum
			G			
152	Gajapippali	Gajpipul			Gajpippalu	Pothos officinalis
153	Ganikarika	(See No. 5)				
154	Gandadurba	Gandadurba	Gandari dubipach	Ganda durba		Knotted bent grass
155	Gandhanakuli	Gandharasna	Nye			Ophyioxylon Serpentinum
156	Gambhari	See No. 128				
157	Gardabhanda	Gayasootha				Hibiscus populneus
158	Guggulu	Guggul				Balsamodendron mukul
159	Gunja	Kunch	Chirmiti	Eraru		Abrus precatorius
160	Guratwaka	Dalchini				Cinnamon Zelaynica
161	Guduchi	Goluncha	Gurach	Sulbeli	Tippatoge	Tinospora cordifolia
162	Gojihba	Gojia	Govi			Elephantopus scaber
163	Godhapadi	Goalelata				Vitis pedata
164	Gopala karkati	Kumdruki	Gorubhaba			
165	Gakshura	Gokshur	Gokshursul			Tribulus terrestris
166	Grishma sundara	Gime sak				Pharnaceum mallugs
167	Ghantapatali	Ghontaparul	Mosha			A kind of trumpet flower
168	Ghritakumari	Ghritakumari	Ghritakumari	Kubari		Aloes perfolita
169	Ghosha	Ghosha	Kartarai	Kahire		Luffa amara
			H			
170	Hansapadi	See No. 163				

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
171	Haridra	Halud	Hardi	Haldi	Pasup	Circuma longer
172	Haritaki	Hartuki	Harrha	Hiraba	Karak-chettu	Chebulic myrobelan
173	Hastikarna-palasha	Bhupalash				Butea superba
174	Hastishundi	Hatisurra		Nelbal		Heliotropium Indicum
175	Hingu	Hing	Hingu		Ingoor	Ferula asa-foetida
176	Hingupatri	Bansapa-tratrina				Balanitis rox-burghi
177	Hilamo-chika	Hinchi sak	Hurhuch			Enhydra fluc-tuans
178	Hemchandra					

I

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
179	Ijjala	Hijal	Ijar	Parjaya		Engenia acu-tangula-
180	Indrajaba	Kurchi	Indrajab			Holarrhena antidysen-terica
181	Indrabaruni	Rakbal-sasa	Indra-barun	Indra-baruni		Cucumis colo-cynthis
182	Ikshu	Ak	Gande		Cheruku	Saccharum officinarum
183	Ikshaku	Tita-lau	Tumbi	Koru-bhopla	Cheti anub	Lagenaria vulgaris

J

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
184	Jatamansi	Jata-mansi	Konuchar			Valeriana Jatamansh
185	Japa, Jaba	Jabaful				Hibiscus Rosa sinemsis
186	Jambira	Gonra-nebu	Nimbu	Id	Nimma-chettu	Citrus medicai
187	Jayanti	Dhanche	Joit	Soberi		Sesbania aculeata
188	Jayapala	Joypala				Croton tiglium

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
189	Jaya	See Bhanga				
190	Jalapippali	Kanchra-dam	Panisga			
191	Jati	Chameli				Jasminum grandiflorum
192	Jwalamukhi	Hurhur	Halhul	Surjaful-balli		Cleome Viscosa
193	Jatipatri	Joitri	Jabatri			Myristica officinalis
194	Jeeraka, Jeera	Jira	Jira			Cuminum cymiaum
195	Jibaka	Jibak				Pentaptera tomentosa
196	Jeebanti	Jibai				Celtis orientalis
197	Jotismati	Latafatki	Malkan-guri		Bikku-dutoge	Cordiospermura halica cabum
198	Jamani	Jowan	Ajowan	Uba	Aman	Ptychotis Ajwan
199	Jaba	Jab	Jub	Juj	Godhu-mlu	Hordeum hexsastikon
200	Jabaticta	Kalmegh	Jabechi			
201	Jostimadhu	Jasti-madhu	Molatti			Glycyrrhiza Glabra
202	Jamachincha					
203	Jakshalochana					
204	Juthika	Jui	Juhi	Padanjui		Jasminum auriculatum
205	Jhinti	Jhanti	Karsaraia			Beleria cristata

K

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
206	Kankola	Asoka	Asogi			Saracu Indica
207	Kangu	Kangni-dhan			Kodralu	Panicum Italicum
208	Kanganika	(See No. 207)				Panicum Ilalicum

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Tellegu.	Botanical.
209	Kanchuki	Khirye				Asclepias rosea
210	Kataphala	Katphala	Kayaphal	Kaya-phal		Myrica sapida
211	Katutumbi	Titalau	Tumbi		Chetimer	Lagenaria vulgaris
212	Katurohini	Katki	Katki			Picrorhiza kurooa
213	Kathilla	Uchha				Mimordica Charantia
214	Kana					
215	Kantakari	Kantikari				Solanum Jacquini
216	Kantarika	See No. 215				
217	Kataka	Nirmali		Chilu		Strychnos potatorum
218	Kadamba	Kadam		Kolambu	Kadimi-chettu	Nauclea kadamba
219	Kadali	Kala	Kela		Donetoge	Musa sapientum
220	Kanaka	Nageswar	Kababchini		Nangal	Mesua ferrea
221	Kanya	See No. 168				
222	Kapithha	Kotbel	Koith	Kambit	Belog-chettu	Feronia elephantum
223	Kapotika					
224	Karunji	Karancha	Karoda		Kanag-chettu	Pongamia glabra
225	Karamarda	Amla karanja	Karoda		Do.	Do.
226	Karabira	Karabi	Kanoili	Konoilu	Gonneru	Nerium odorum
227	Karkatsringi	Kakra-sringi	Kakra-sringi	Kakra-sringi	Karka-sringi	Acuminata
228	Karkati	Kankur	Kankri		Nakka. dosh	Cucumis utilatisimas
229	Karkaru	Kumra	Kohari			Benincasa cerifera

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
230	Karkotika	Kakrole				Alangium Hexapetalum
231	Karnikara	Chota sondal		Laghu-bahaba	Kiru-gokke	Casia fistula
232	Karpura	Karpur	Kapur		Kapurme	Cinnamomum Camphora
233	Karpurabelli					
234	Kalakrora					
235	Kalambi	Kalmi sak	Karebu			Convolvulus repens
236	Kalaya	Matore				Pisam Sativum
237	Kalikari	Islangala				Gloriosa superba
238	Kalinga	Tarmuz				Cisalpinia bonducella
239	Kalihari	See No. 237				
240	Kakajangha	Kewa-thenga				Leea hirta
241	Kakatundi	Kewa-thunthi	Kabagh	Kabaya		
242	Kakamanjari					
243	Kakamachi	See No. 241				
244	Kakini	Kunch				Abrus precatorius
245	Kakodumbarika	Kakdumur	Katumbhari			Ficus hispida
246	Kakoli	Kakla		Kazeli		Calculus Indicus
247	Kanchana	Kanchan	Kachnar	Kochanai	Deb-kanchan	Bauhinia variegata
248	Kanchanara	See No. 247				
249	Kastoudumbara	Kakoli	(See No. 246)			
250	Karabella	Karala	Karail		Kakar-chettu	Mimordica Muricata
251	Kamranga	Kamranga		Karmarache		Averrhoea carambola

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
252	Karpasa	Kapas				Gossypium harbaceum
253	Kimsuka	See No. 369				
254	Kiratatickta	Chirata	Chiraiyta		Nilbesa	Agathotus chirayta
255	Kukkurdru	Kuksima				Blumea lacera
256	Kutaja	Kurchi	Kabaya	Kabaya	Tummi-chettu	Echites anti-dysenterica
257	Kunda					
258	Kumari	Same as ghritakumari				
259	Kumbhi	See No. 158				
260	Kulattha	Kurti-kalay				Dolichosuni-florus
261	Kulika	Kula-khara	(See No. 268)			
262	Kushanda	Kumra	Kumra		Gumri	Benincasa cerifera
263	Kusumbha	Kusum-ful		Karida jharh		Carthamus tinctorius
264	Krishnajalaka					
265	Krishna-jeeraka	Kalajira	Mongrail	Kalejira	Nallajir	Nigella sativa
266	Kesharaja	Kesurte	Bhegoria			Eclipta erecta
267	Kaibarta. mustaka	Kesur-mutha				Ciperus rotan-das
268	Kokilaksha	Kule-khare	Koilaya	Kolisa	Gobbi-chetta	Hygrophila spinosa
269	Kodraba	Kodo-dhan		Kodra-han		Pispalum-scrobiculatum
270	Koranti					
271	Kola	Kul				
272	Kashalaki	Jingha	Nanka			Luffa acutan-gula
273	Kkadira	Khair			Changra-chettiu	Acacia cate-cheu
274	Kharjura	Khajur		Sindhi		
275	Kshairkakoli					

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
276	Kshirbidari	Sada-bhukumra				
277	Kshirini	Khirni				
278	Khiri	See No. 257				
	L					
279	Lakucha	Mandar	Barhar			Artocarpus lakucha
280	Lajjalu	Lajgabati		Lajalu		Mimosa pudica
281	Latakaranja		Kanta-kari			
282	Latakasturi	Lata-kasturi	Musuk-dana			Hibiscus abel-moschus
283	Labanga	Labanga	Long	Labanga-kalika	Laban-galu	Carophyllus aromaticus
284	Langali	(See Kalikari)				
285	Laksha	Laha	Lahi		Lanka	Coccus laca
286	Lodhra	Lodh	Lodh			Symplocus racemosa
	M					
287	Manjistha	Man-jistha			Manjiti	Rubia cor-difolia
288	Mandu-kaparni	Thulkuri	Thulkuri		Mandi-khatni	Hydroctyle Asiatica
289	Matsyakshi	See Hilamchika				
290	Madana	Moynafal	Karhar	Menahal	Monda-chettu	Kanda dume-torium
291	Madhuka	Moul	Mohua		Pinna	Bassia latifolia
292	Mayura-shikha	Lalmo-rogphul		Mayur-sikha		Celosia cris-tata
293	Maricha	Marich	Marich	Marich	Milagu	Piper nigrum
294	Marubaka	Gandha-tulsi				Ocymum caryo phyllatum
295	Mallika	Mallika		Billmo-gra	Malla-chettu	Jasminum sambac
296	Masoora	Masuri	Masur	Chanai	Misoo-rappu	Cicer lens

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
297	Mahakali					
298	Mahabala					
299	Mahabheri	Maha-bheribach				Cuscuta zeur-mbet
300	Maharasti	Same as Jalapippali				
301	Matulunga	Same as Bijapura				
302	Marisha	Kantanatia				
303	Melati					Echites caryo phyllata
304	Masha	Mash-kalai				Phaseolus radiatus
305	Mashaparni	Mashani	Mashani	Ranurdi		Taramunus labialis
306	Meenakshi	Brahmi	Barumbhi		Bimi	Harpestis monniaria
307	Mundi	Thulkuri	(See No. 288)			
308	Mundiri	Mundiri	Mundi		Rottak	Spheranthus Indicus
309	Mudga	Mug	Mung	Mug	Pasalu	Phanolus mungo
310	Muramansi	Ekangi				Muraya exotica
311	Musali	Talmuli				Circuligo orchioides
312	Musakarni	See No. 36				
313	Musta	Mutha	Motha			Cyperus rotan dus
314	Murba	Murba	Churne-lar	Gonasful	Sagu	Sansevieria zeylanica
315	Mulaka	Mula	Muli	Mulanga	Mulanga	Raphanus sativus
316	Mula	See No. 315				
317	Mrigadurba					
318	Meghanada	Katanatia	Chabrai	Tandalika	Mollu-kirai	Amaranthus spinosa
319	Meda	Meda				

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
320	Meshasringi	See No. 11				
321	Mocharasa					
322	Mokshaka	Ghanta patali	Mosha	Mokhe	Mokku-puchettin	Schrebera Sweitenioidi
323	Mohameda					

N

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
324	Nakuli	Nakuli	Chandra			Vanda roxburghii
325	Nakhi					
326	Nakuli	See No. 324				
327	Nagakesara	Same as kanaka				
328	Nagadanti	Hatisurra		Nagdanti		Heliotropium Indicum
329	Nagabala	Goraksha-chakula	Kakahi			Sida spinosa
330	Nagarjani					
331	Nageswara	Same as Kanaka				
332	Nata	Tagar-pudaka				
333	Nichula	Hijal	See No. 179			Barringtona acutangula
334	Nimba	Nim	Nim	Nimbu	Sepa-chettu	Melia axadirachta
335	Nimbu	Kagjilebu				
336	Nirgundi	Nisinda	Mewdi	Lingur	Nokchi	Vitex negundo
337	Nirbisha					
338	Neelajhinti	A variety of No. 205 with blue flower				
339	Nili	Neel				Indigospera tinctoria
340	Nilika	Same as No. 339				
341	Nyagrodha	See No. 60				

P

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
	Panchamrita					
342	(a) ghee					
343	(b) honey					
344	(c) guggulu					Bdellium

No.	Sanskrit.	Bengali.	Hindi.	Mahra ti.	Tamil or Telegu.	Botanical.
345	(d) gunja					Abrus precatorius
346	(e) tankanam					
347	Patola	Patol	Parwar	Kahiparbal	Kommupatol	Trychosanthis Dioica
348	Padmacharini	Sthalapadma				Hibiscus mutabilis
3349	Paandu	Peaz	Piaj	Swetakanda	Benjoim	Alium sepa
350	Palasha	Palasha	Dhara	Palas	Parshan	Butea frondosa
351	Patala	Bihidana				
352	Patha	Aknadi	Nimuka		Pathchettu	Cissampelos hernandifolia
353	Patali	Parul	Pad	Padli	Padri	Bignonia suaveolens
354	Patalmuli					
355	Paribhadra	Paltamadar	Farhad	Pangra	Murak	Erithrina Indica
356	Parula	(See No. 353)				
367	Pashanbhedi					
358	Pippali	Pipul	Pipar	Pippali	Pippali	Piper Longum
359	Pippalimula					Root of Do.
360	Peetajhinti	A yellow variety of No. 205				
361	Peetabala					
362	Peetasala	Piasal				Pentapteva tomentosa
363	Peelu	Pilu	Jhal	Pilu	Koku	Salvadora Indica
364	Putranjiba	Jiaputa	Putrajib	Jibanputar		Putranjiva roxburghi
365	Punarnaba	Punarnaba	Santa	Pandarighentalu		Boerhavia diffusa
366	Puskaramula	Puskarmula	Phokrmuli			Aplotaxis auriculata (root of)
367	Putikaranja	Nata karanja				Cisalpinia bonducella

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
368	Prishniparni	Chakula	Pithban	Sebra		Doodia lagopodioides
369	Prasarini	(See No. 300)				
370	Priangu	Priangu	Priyang	Gohula		Aglaia roxburghiana
371	Phenila	Ritha	Ritha		Kukudu-koilu	Sapindas trifoliatus

R

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
372	Riddhi	Riddhi				
373	Risava					
374	Raktakanda	Raktalu	Raktaru			Dioscorea sativa
375	Raktachandana	Red variety of No. 111				
376	Raktachitraka	Do. of No. 120				
377	Rakta punarnaba	Red variety of Punarnaba				
378	Raktalu	Lalpindalu	Raktaru			Dioscorea sativa
379	Ranjana					
380	Rambha	See No. 219				
381	Rasona	Rasun	Lasun	Pansasna	Tellaballi	Alium sativum
382	Rajadana	Khirni	Khiri	Raini	Palla	Mimusops hexandra
383	Rala	Dhuna	Kingli			Juice of mimosa rubitcaulis
384	Rasna	Rasna				Vanda roxburghii
385	Rakshasi	Muramansi	(See No. 310)			
386	Rudanti	Rudanti				

S

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
387	Sankhapuspi	Dankuni				Andropogon auriculatum

No.	Sanskrit.	Bengali.	Hindí.	Mahrati.	Tamil or Telegu.	Botanical.
388	Satamuli	Satamuli	Satabari	Sanikan-teseru	Challa	Asparagusra-cemosa
389	Satabari	(See No. 388)				
390	Sampaka	(See No. 22)				
391	Sarapunkha	Bananil	Sara-phonka	Utillali	Kollu-koibelloi	Tephrosia pur-burea
392	Sarkara-kanda	Sakar-kand	Sakar-kand		Bulliki-jahangu	Ipomoea bata-tas
393	Sakhota	Seora	Sahora	Sahod	Barnki	Striblus aspe
394	Sala	Sala	Sala		Epe-chettu	Shorea robusta
395	Salaparni	Salpani	Sariban			Hedyasarum r gangeticum
396	Salı	Amon-dhan				A kind of rice
397	Salmali	Simul	Simur	Sambari	Pula	Bombax mala-baricum
398	Salmalikanda			Sambari-knnda		Root of Do.
399	Sigru	Sajina	Sahinjan		Moranga	Moringa pte-rygosperma
400	Simbi, Simbika	Sim	Sembi			Dolichos gladiatus
401	Sirisa	Siris	Siris		Dirson	Acacia lebbee
402	Sibalingi	Lingini				
403	Sunthi	Sunth	Sunthi			Gingiber offi-cinalis
404	Surana	Ole	Ole	Suranu	Suran	Arum campa-nulatum
405	Sringaka					
406	Sobhanjana	(See No. 399)				
407	Syamakun-dalika					
408	Sreedebi					
409	Swatajhinti	White variety of No. 205				
410	Swetabala					
411	Swetarka	White variety of No. 23				

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
412	Sastika	Shetedhan				
413	Saptaparna	Chhatim	Echites scholiaris			
414	Sarani	Same as Prasarini				
415	Sarala	Same as Debdaru				
416	Sarja	Sal				Mimosa rubicaulis
417	Sarja-rasa	(See No. 403)				
418	Sarpakshi	Panseli	Sahachar			Oppiorrihiza mungos
419	Sarsapa	Sarisa	Sarso			Brassica campestris
420	Sahadebi	See No. 418				
421	Saha	Same as Mashaparni				
422	Sehunda	Mansasij	Sehendu			Euphorbia nerifolia
423	Suryabarta	Hurhure	Hul hul	Surjafulballi		Clesome Viscosa
424	Somaraji	Somraji	Bukchi	Bowchi	Tippatoge	Vernonia anthelmintica
425	Somalata	Somlata			Pullatoge	Asclepies acida
426	Snuhi	See No. 422				

T

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
427	Tagara	Tagar	Tagarchandi		Nandibardhanchettu	Taberroemontana coronaria
428	Tagarapadika	Tagarpaduka	,,		,,	
429	Tanduliyaka	See No. 338				
430	Tambula	Pan	Pan		Bettili	Piper betel
451	Talmuli	Talmuli	Musali		Neltar	Circuligo orchioides
452	Talishapatra	Talishpata	Talishpatri		Talishpatri	Pinus webbiana
433	Tintiri	Tentul	Imli	Imli	Chint	Tamarindus Indicus

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
434	Tinduka	Gab	Tend	Tembar-uan	Tamik	Diospyrus glutinosa
435	Tila	Til	Mithatil	Til	Nubbulu	Sisamum Indicum
436	Tilaparni	Tiloni				
437	Topchini (Dvitantara Vacha)	Topchini	Chobchini			Smilax china (China root)
438	Tumburu	Nipali dhania	Tejbal	Tendu	Tumburu	Zanthoxylon alatum
439	Tumbi	Lao	Kadu	Cercurbita langenaria		Dudhya-bhopla
440	Tulasi	Tulasi	Baranda	Tulsiche jarh	Tulasi	Ocymum Villosum
441	Tuttha	Tunt	Tutri sahur	Bangrali	Madhu-kattai chedi	Kambali chettu
442	Trapusa	Sasa	Khira	Towsi-karkati	Dogkoya	Cucumis sativa
	Trikatu—					
443	(a) Sunthi	(See No. 403)				
444	(b) Pipul	(See „ 358)				
445	(c) Marich	(See „ 313)				
446	Tripusha	Kala tewri				
	Triphala—					
447	(a) Haritaki	(See No. 172)				
448	(b) Bibhitaki	(See „ 77)				
449	(c) Amalaki	(See „ 39)				

U

No.	Sanskrit.	Bengali.	Hindi.	Mahrati.	Tamil or Telegu.	Botanical.
450	Udumbara	Jajnadu-mur	Gular	Amber-chejarh		Ficus glomeata
451	Uttamakandika					
452	Utpala	Nilpadma				Nymphoea stellata
453	Usira					

RASA-JALA-NIDHI,

OR

Ocean of Indian Chemistry and Alchemy.

Written in Sanskrit with English translation by Bhudeb Mookerji M. A. of 41-A Grey Street, Calcutta.

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OPINIONS.

(1)

Sir Jagadish Chandra Bose :—

Please accept my sincere thanks for copy of Rasa-jala nidhi which I am looking forward to reading with great interest. Of course, in chemical Science, you should interest modern chemists in the achievement of Hindu Chemistry in the past.

(2)

Sir C. H. Setalvad, Vice-chancellor, Bombay University :—

It is indeed very creditable to you to have carried on your researches in Indian Chemistry and to publish the results in such comprehensive form. The publication is sure to attract the attention of all those who are iuterested in making available to the public the past achievement in the field of science by India. I will certainly ask thc syndicate of the university to give such encouragement to your work as they may think proper.

(3)

Dr. H. K. Sen, M. A. D. SC. Professor and Head of the Department of Applied Chemistry, University College of Science and Technology, Calcutta :—

I thank you very much for the very attractive copy of your Rasa-jala-nidhi, Vol. I. I enjoyed the reading of the whole volume...... you have been able to make the treatise extremely interesting. The work indicates erudition and the requisite patience of a scholar. I am really looking forward to your subsequent volumes, which I hope will come out in rapid succession and justify the excellent promise given in the first volume......

(4)

Prof. Arthur B. Lamb, Director, Chemical Laboratory fo Harvard College, Cambridge, U. S. A :—

I have examined the book with interest and thank you for it.

(5)

Prof. L. M. Dennis, Head of the Department of Chemistry, Cornell University, U. S. A :—

I looked through the book with much interest.

(6)

Prof. H. Nagaoka of the Institute of Physical and Chemical Research, Tokyo :—

You were so kind as to send me your interesring book "Ocean of Indian Chemistry and Alchemy," which I read with much interest......I am at present engaged with electric experiments in the same domain of research......I hope to obtain sufficiently large quantity of gold from mercury.

I have placed your book in the library of the Institute so that it will be consulted by those interested with the subject. There is an old Chinese treatise on similar subject. I believe that it originated from India.

(7)

The Chemical News of London dated the 16th September 1927 :—

Alchemical Literature.

Two Important Indian Publications. It is becoming apparent that there is a revival of scientific interest in Alchemy. Two new and important contributions have appeared in Indla, and merit attention. The first is a bound volume by Dr. Bhudeb Mookerji M. A., entitled Rasa-jala-nidhi or Ocean of Indian Chemistry and Alchemy, and is the first of a series to be edited by him.

Hindu Chemistry and alchemy is a subject almost unknown and our indebtedness to the Indians' early contributions to the development of science was briefly dismissed in the Brief outline of the History of science (by Dr. Gerald Druce). *We are therefore especially grateful to Dr. Bhudeb Mookerji for his compilation...* Details are given for the preparation of mercury for use in medicine and *for transmuting itself or base metals into gold*, etc. The bilingual text is accompanied by a glossary and definitions and is

preceded by a valuable introduction....Of both works under review it may be said that further publications will be awaited with interest

(8)

"Englishman," Calcutta, May 30, 1927.

The work is an ambitious undertaking and is expected to be completed in 10 volumes. The book claims to be a comprehensive treatise on Indian Chemistry and alchemy, an art almost lost several centuries. It contains much interesting matter which deserves testing under modern laboratory methods. The author describes several processes, by which he maintains, it is possible to make mercury swallow, without any appreciable increase in its weight, much of gold and other materials. Another equally interesting topic he has dealt with is the transformation of base metals into gold. In view of the scientific attention that has been devoted to this subject, there is no reason why the formulae as given out in this work should not be given a fair trial. These instances, taken at random, are fair samples of the startling and important nature of the contents. The processes have been described in detail and the author himself has given his agreement with them from the result of his own research. The first instalment from the pen of this author is promising. He deserves the thanks of all orientalists and Indian chemists for rescuing a science that was in great danger of being lost altogether. The work is heartily recommended to the attention of those interested in Indian Chemistry.

(9)

"Bharatvarsha" the leading Bengali magazine of Calcutta :—

The work, when completed, will no doubt prove to be the greatest and the most comprehensive treatise on Hindu Chemistry and alchemy......The author is an eminent and successful physician, and most probably he has been able to earn a high reputation by prescribing the medicines described in the book under review. Physicians in general, we are sure, will be profited by a study of the book.